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Ministry of Environment, Lands and Parks

ANNUAL REPORT 2001

(Fiscal years 1999/2000 and 2000/2001)

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Message from the Deputy Minister

This annual report summarizes activities of the Ministry of Environment, Lands and Parks during the period beginning April 1, 1999 and ending March 31, 2001.

Both the structure and content of this report have been built around the ministry's responsibility to ensure sound environmental stewardship, support sustainable social, economic and recreational benefits, and provide high-quality service to the public.

In a significant departure from previous annual reports, which were organized by division, branch and region, the ministry's work is presented here in a strategic context: commitments identified in the two-year *Business Plan 1999-2001*, released in May 1999.

By providing the public with a comprehensive picture of the ways in which the ministry worked to fulfill these commitments, this report takes into account provisions in the *Budget Transparency and Accountability Act* requiring all ministries to report on the basis of their performance plans by June 30, 2002.

In addition to performance reporting, this report also includes relevant information on environmental trends in key areas, as well as supplemental information, to help provide the answers to three questions: why we are doing what we do, what we are doing, and how well we are doing – both as a ministry and as a province.

The ministry had many allies in these efforts. I would like to thank all of our colleagues in other levels of government and provincial agencies, and our partners and clients in non-governmental organizations, community groups and the private sector, for their complementary efforts on behalf of a sustainable future for British Columbia and for the cooperation and support provided to the work documented in these pages.

Derek Thompson
Deputy Minister

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MILESTONES

April 1999 – March 2001

1999

April

The Ministers of Health and Environment, Lands and Parks committed to joint action to protect drinking water quality in response to the recent Auditor General's report.

A Biology 11 Grizzly Bear Education package for secondary schools was launched.

$900,000 in funding was announced for a new Muskwa-Kechika Research Program at the University of Northern B.C.

The final report of the Pollution Prevention Planning Demonstration Project, carried out by six major B.C. companies, was released.

The Robson Valley Land and Resource Management Plan established 10 new protected areas.

May

The new Municipal Sewage Regulation was introduced to improve water quality, encourage use of innovative treatment technology, and eliminate red tape.

New *Wildlife Act* amendments provided for bigger penalties for poachers and made it an offence to feed or attract dangerous animals.

June

Park Act amendments permanently protected 1.4 million hectares as Class A parks, including new Northern Rockies protected areas.

$1.7 million in funding was announced for 35 conservation projects in the Northern Rockies under the Muskwa-Kechika Trust Fund.

July

The province committed to develop new protected areas legislation and other measures to launch the next stage of B.C.'s Protected Areas Strategy.

Pilot plans to restore threatened grizzly bear populations were announced for the North Cascades and Kettle-Granby areas.

August

$7 million in funding was announced to battle bark beetle infestations.

The Lakes District Land and Resource Management Plan was approved by the province, creating a further 92,000 hectares of protected areas.

$2.8 million in funding was announced for 37 projects to provide long-term flood protection for communities throughout B.C.

September

A $150,000 contribution was made from the Habitat Conservation Trust Fund to the Land Conservancy of B.C. to preserve the grassland ecosystem at Reynolds Ranch in the Cariboo.

The province nominated the Cowichan River for Canadian Heritage River status.

October

The beverage container deposit/refund system marked its first year of enhanced operation with the inclusion of all ready-to-drink juice containers.

A policy to ensure a viable and environmentally sustainable salmon aquaculture industry was announced.

A multi-faceted ecotourism and adventure travel strategy was launched as part of the government's focus on the green economy.

Joint acquisition of a new Pacific Marine Heritage Legacy property at Narvaez Bay on Saturna Island was announced by the province and the federal government.

November

A discussion paper on environmental tax-shifting was released as part of the Green Economy Initiative.

The government's Oil and Gas Initiative provided for improved environmental protection and funding for conservation activities in the Muskwa-Kechika and other special management zones.

A new regulation was introduced to achieve further recovery, recycling and phase-out of ozone-depleting substances and of alternatives that produce greenhouse gas emissions.

A Freshwater Strategy for British Columbia was released, focusing on preserving aquatic ecosystems, protecting human

health and safety, and promoting sustainable use of water resources.

December

Alcan announced a five-year voluntary pollution prevention plan for its Kitimat operation, focusing on avoiding pollution at the beginning of production and a 10 per cent reduction in greenhouse gases.

The Government Green Buildings program and Provincial Buildings Retrofit Initiative were launched as part of the Green Economy Initiative.

British Columbia received an A-plus on the Friends of the Earth Ozone Protection Report Card.

2000

February

Clayoquot Sound was designated by UNESCO as the first International Biosphere Reserve in British Columbia.

A new Dam Safety Regulation was introduced to protect people and the environment through improved monitoring and maintenance.

A "quick-licensing" process came into effect that allows streamlined processing of applications for low-volume, low-impact water licences.

A Well Protection Tool Kit was introduced to help groundwater-dependent communities plan for healthy drinking water supplies.

The province and industry agreed to restore natural water flows to the Theodosia River through decommissioning of the Theodosia dam.

March

The Campbell and Horsefly Rivers were designated as BC Heritage Rivers.

Fifteen sensitive streams were designated under the *Fish Protection Act* to protect endangered fish stocks and enhance agricultural water management.

$2.5 million was committed from Forest Renewal BC to support acquisition of critical habitat in the South Okanagan by the Nature Trust of BC.

A report by the BC Clean Transportation Analysis Project identified US federal tailpipe standards as the most cost-effective way to protect urban air quality in British Columbia.

$300,000 in seed funding was committed to an ethanol development plan to encourage commercial production of ethanol from wood residue.

The government's Green Economy Initiative was officially launched at the Globe 2000 environmental technology conference.

The provincial budget committed $5 million to environmental technology research and demonstration projects and public consultation on tax shifting.

April

A special advisor was appointed by the governments of Canada and British Columbia to seek public input toward the creation of a national park in the southern Gulf Islands.

A review of the Burns Bog ecosystem in south Delta recommended strategies for moving toward preservation of the bog.

Renewed action was announced to promote greater community responsibility for reducing bear/human conflicts.

The Environmental Trends in British Columbia 2000 report was released, summarizing recent trends and current conditions in 15 key areas of environmental quality to give a comprehensive overview of the state of British Columbia's environment.

May

A long-term agreement for managing backcountry recreation tenures on provincial Crown land was signed between the Ministry of Environment, Lands and Parks and the B.C. Assets and Lands Corporation.

A $30,000 grant was made to the BC Agriculture Council to develop best management practices for environmentally sustainable farming.

New protected areas legislation was introduced to permanently protect new parks, ecological reserves and park additions totalling 264,000 hectares.

333 hectares were added to the Eastside Columbia Lake Wildlife Management Area in the Kootenay Region.

increasing the area of wetlands for protection of waterfowl, swans and burbot to 7,195 hectares.

June

Consultation began on regulations and policies under the *Fish Protection Act* to ensure the needs of fish are considered in water licence decisions, and to help prevent damage to fish habitat from construction debris and other materials.

A report on special management zones on north Vancouver Island identified areas where timber harvesting practices needed to be improved.

More than 100 projects were announced under the Georgia Basin Ecosystem Initiative to improve air and water quality, protect habitat and species, and work with communities to build a sustainable environment in the region.

Legislation was introduced to encourage the use of motor-assisted cycles as an alternative to larger vehicles.

An enhanced monitoring program for fish farms was announced in partnership with the salmon farming industry, as a step toward the development of performance-based environmental standards for the industry.

An advisory council was appointed to help achieve environmental certification for forest management in B.C.

The government announced the $3-million Green Economy Development Fund and $1-million Green Venture Capital Program, two new provincial programs to encourage investment and innovation in thew province's environmental technology sector.

Fourteen B.C. lakes and coastal sites were designated as no-discharge zones under federal legislation prohit iting the discharge of boat sewage. A further 61 further sites nominated by the province are under review for future designation.

A joint management plan for the Stein Valley Nlaka'pamux Heritage Park was signed by the province and the Lytton First Nation.

July

A government-commissioned report on jobs and the environment by BC Spaces for Nature described the prospects for a greener economy in British Columbia.

B.C.'s first two wildlife habitat areas were established under the Forest Practices Code, to protect bat caves on northern Vancouver Island and mountain goat habitat in the Prince George region.

The province's first tax-shift pilot project was introduced to help phase out the remaining wood residue burners near British Columbia's populated centres.

New legislation was passed to create a trust fund for aquaculture research, development and education, and promote environmentally sound technologies and practices in the salmon farming industry.

A federal/provincial report based on two decades of monitoring showed water quality trends in selected B.C. water bodies to be mostly stable or improving, and identified action plans for those where water quality is deteriorating.

Changes to the *Waste Management Act* and the Open Burning Smoke Control Regulation were announced to reduce the harmful effects of fires from land clearing, and regional hotlines established to provide callers with information on when open burning is allowed.

The South Okanagan-Similkameen Conservation Program, a partnership of the federal and provincial governments and non-government, conservation and community groups, was launched to conserve the area's biodiversity and protect its species at risk.

August

The province, Maple Ridge and the GVRD announced an agreement to buy and preserve 91 hectares of Blaney Bog, a unique wetland in Maple Ridge.

The province urged Washington State regulators to reject the Sumas Energy 2 power project to protect human health and air quality in the Fraser Valley.

The province, the Squamish First Nation and the BC Rail Properties Ltd. Group signed an umbrella agreement to protect the environment of the Squamish Estuary.

September

BC Ferries launched a major upgrading of sewage treatment on their vessels, using state-of-the-art technology designed in B.C.

Race Rocks near Victoria was endorsed by the federal and provincial governments as Canada's first Marine Protected Area.

October

A new manual for integrated pest management, designed to reduce pesticide use by 60 to 80 per cent, was released for use by the landscaping industry.

Stringent new regulations governing fish farms were announced, and four pilot projects awarded to companies working on green technologies in the industry.

The Cassiar Iskut-Stikine Land and Resource Management Plan was approved, resulting in a net increase of more than 200,000 hectares of protected lands in north-western British Columbia, including the Stikine Grand Canyon.

B.C.'s three-year Climate Change Business Plan was released, including new funding of $13.4 million for greenhouse gas emissions reduction and detailed commitments in transportation, energy and industry, communities and buildings, forests and agriculture, and other key areas.

A new facility for recycling polycoat drink boxes and gable top containers opened in Burnaby, complementing requirements under the beverage container deposit-refund program.

The province partnered with local and non-profit groups to purchase a 118-hectare private lakefront property in Okanagan Mountain Provincial Park, containing some of the most endangered plants and animals in the country.

The second stage of the Greater Vancouver Regional District's liquid waste management plan was approved.

An additional $4.9 million was added to the budget of the Ministry of Environment, Lands and Parks to strengthen its front-line enforcement and environmental protection services.

The Mackenzie Land and Resource Management Plan was approved, adding more than 600,000 hectares to the protected areas system and nearly 2 million hectares to the Muskwa-Kechika Management Area, making British Columbia the first jurisdiction in North America to meet the United Nations goal of protecting 12 per cent of its landbase.

November

A strategy to prevent coastal habitat loss and degradation in the Georgia Basin was completed by an inter-agency working group set up by the Puget Sound-Georgia Basin International Task Force.

December

An $80,000 grant from the provincial agency Ethanol BC was announced to help fund a demonstration plant in Kelowna employing new technology to turn wood residues into ethanol and electric power.

2001

January

The Okanagan-Shuswap Land and Resource Management Plan was approved, doubling the protected area in the region and bringing the total protected area in B.C. to 12.37 per cent of the province.

A new regulation was passed under the *Fish Protection Act* to strengthen streamside protection of fish habitat on fish-bearing streams in urban areas.

A draft drinking water protection plan was released for public discussion.

Fifty-six new parks, park additions and protected areas comprising more than 462,000 hectares were legally protected through designations under the *Park Act* and *Environment and Land Use Act* as agreed to in land-use plans.

February

A Greening Government Action Plan was launched to conserve energy and reduce greenhouse gas emissions from government operations by 16 per cent by 2005 through the use of lower-emission vehicles, building retrofits and development of renewable energy sources.

A three-year moratorium was imposed on grizzly hunting in B.C. while scientists assess B.C.'s grizzly bear populations and provide expert conservation advice to the government.

A $1-million federal/provincial cost-share was announced to employ 100 young people in E-Team Crews building the Trans Canada Trail.

Consultation began on a Regional Wildlife Harvest Management Approach for different regions of the province, to give direct users of wildlife opportunities for input into harvest management decision-making.

March

The province provided the final funding necessary to complete a major land acquisition in the Sooke Hills, virtually completing the assembly of a Sea to Sea Greenbelt in Greater Victoria.

The 122,787-hectare Todagin Wildlife Management Area was designated as recommended by the Cassiar Iskut-Stikine Land and Resource Management Plan, protecting Stone's sheep and other wildlife.

Funding was provided to the Federation of BC Naturalists for future planning and implementation of Wildlife Watch, the provincial wildlife viewing program.

Funding was provided to hire a full-time coordinator for provincial Bear Aware programs, supporting efforts to manage bear problems in residential area and help conserve bear populations.

A new $5-million federal-provincial Agriculture and Environment Green Fund was announced to help producers address and manage environmental challenges.

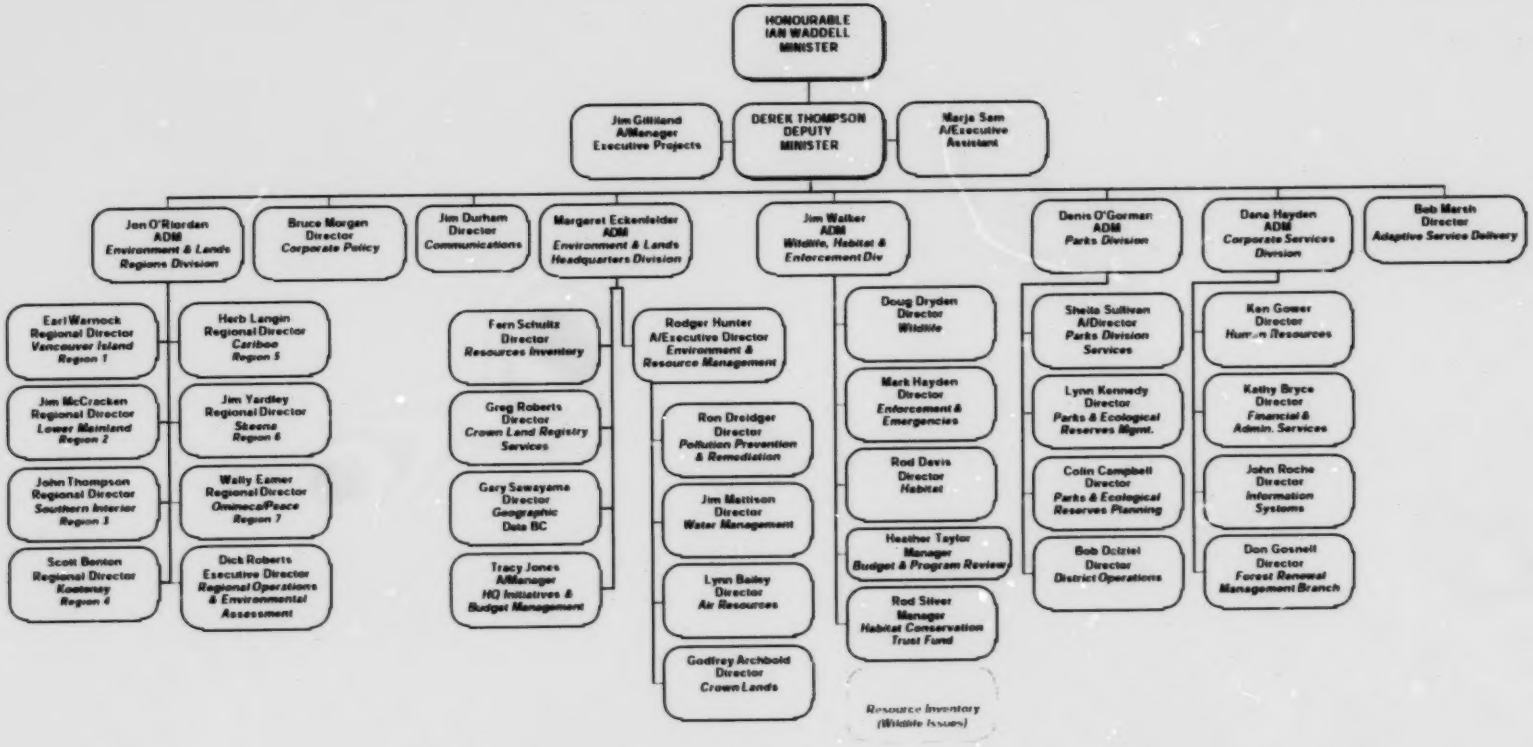
Legislation was introduced to establish the highest level of protection for 15 new Class A parks, a new ecological reserve, and additions to six existing Class A parks totalling more than one million hectares.

Th wildlife-rich Muskwa-Kechika Management Area was formally expanded under new legislation by 1.9 million hectares and $1 million added annually to its trust fund.

The governments of Canada and British Columbia announced a funding agreement toward the establishment of a national park in the southern Gulf Islands, additions to the provincial parks system in the Gulf Islands, and a formal offer to purchase and permanently protect Burns Bog.

The Ministry

MINISTRY OF ENVIRONMENT, LANDS AND PARKS
MARCH 31, 2001



MINISTRY MANDATE, VISION AND GOALS

The mandate of the Ministry of Environment, Lands and Parks is to protect and conserve natural resources, maintain and restore the quality of land, water and air, and manage water resources for the optimum health of humans and all living things, now and for future generations. The ministry also helps to provide a safer environment by minimizing environmental hazards. The ministry supports human social, recreational and settlement needs, environmentally-sensitive economic development and the sustainable use of resources, and seeks to ensure the government receives a fair return for the use of public resources.

The vision of the ministry is ***an environment that is naturally diverse and healthy, and enriches people's lives.***

The four long-term goals set out below define critical elements in moving toward this vision. The first three goals are fundamental to achieving the stewardship mandate of the ministry, while the fourth, that of "Responsive and Adaptive Organization," addresses how the ministry will go about achieving this mandate The objectives listed under each goal provide more specific direction to the ministry's programs.

1. Natural Diversity: protection, conservation and restoration of a full range of biological and physical diversity native to British Columbia.

Objectives:

- Protect, maintain and restore the diversity of British Columbia's ecosystems and landscapes.
- Protect, maintain and rehabilitate British Columbia's native wild fish populations and their habitats.
- Protect, maintain and rehabilitate British Columbia's native wildlife species and their habitats.

2. Healthy and Safe Land, Water and Air: clean, healthy and safe land, water and air for all living things.

Objectives:

- Anticipate, avoid, reduce or eliminate toxics and wastes reaching the environment.
- Protect and improve the quality of B.C.'s land.

- Ensure a sustained and healthy water resource for B.C.
- Protect and improve B.C.'s air quality, and contribute to meeting global air objectives.
- Reduce the risk of harm to the environment and to people and property from natural and induced events.

3. Sustainable Social, Economic and Recreational Benefits: provision of social, economic and outdoor recreational opportunities consistent with maintaining a naturally diverse and healthy environment.

Objectives:

- Support job growth and sustainable employment with innovative environmental management and sustainable resource use.
- Provide opportunities for youth education, employment, and participation in environmental programs and activities.
- Provide diverse recreational and educational opportunities while protecting B.C.'s cultural, landscape and ecological features and resources.
- Complete land use plans for the province, and preserve and enhance environmental quality in urban and high growth areas.
- Maintain provincial conservation and environmental standards, and promote economic opportunities, in treaty processes and on treaty lands.

4. Responsive and Adaptive Organization: achievement of the ministry's three goals through innovative and responsive ministry programs and staff who seek the best results and service for the public.

Objectives:

- Use better, different and more diverse approaches to achieve the ministry's first three goals.
- Redefine and adapt all business activities and relationships to deliver the three distinct core business activities and relationships in a more effective manner.
- Foster a work culture of trust, continuous improvement and anticipation of client needs.

OPERATING PRINCIPLES

In delivering its mandated responsibilities, the ministry is guided by the following operating principles:

Shared Stewardship	Sharing responsibility for the management of resources and the environment to foster full participation in, and commitment to, sustainability across all segments of society.
Sustainability	For the well-being of future generations, ensuring resources are not used beyond their capacity to be naturally replenished, both in quantity and quality, and maximizing enduring environmental, social, health and economic benefits when resources are used.
Environmental Integrity	Recognizing that all species – human, animal and plant – are dependent on a healthy environment, and that this dependence extends into the future.
Ecosystem-based Approach	Taking a long-term and integrated view of resource systems and management – air, water, land, plants and animals – to ensure ecosystem integrity, recognizing that environmental health, economic health and human health are correlated and interdependent.
Precautionary Principle	Recognizing that where there are threats of serious or irreversible damage, the lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation.
Pollution Prevention Principle	Avoiding, eliminating or reducing the creation, use or release of polluting substances at source rather than controlling or cleaning up such pollutants after they have been created.
User Pay Principle	Expecting users of the environment and resources to pay fair value for use of natural capital, and to exercise this privilege with care and consideration of other living beings. Further, the responsibility and accountability for resource use and the prevention of pollution rests with the user.
Shared Responsibility Principle	Informing society of the spirit and intent of environmental legislation and regulations, and expecting society to accept appropriate responsibilities in accordance with environmental standards, legislation and regulations.

The Strategic Framework

PLANNED BUDGET BY MINISTRY OBJECTIVES FOR 2000/01

Ministry Goals and Objectives	
Ministry Total	**$199,403,000**
NATURAL DIVERSITY	
• *Protect, maintain and restore the diversity of British Columbia's ecosystems and landscapes.*	$46,182,000
• *Protect, maintain and rehabilitate BC's native wild fish populations and their habitats.*	$3,817,000
• *Protect, maintain and rehabilitate BC's native wildlife species and their habitats.*	$3,809,000
Subtotal	**$53,808,000**
HEALTHY AND SAFE LAND, WATER AND AIR	
• *Anticipate, avoid, reduce or eliminate toxics and wastes reaching the environment.*	$32,546,000
• *Protect and improve the quality of BC's land.*	$2,404,000
• *Ensure a sustained and healthy water resource for BC.*	$10,166,000
• *Protect and improve BC's air quality, and contribute to meeting global air objectives.*	$4,195,000
• *Reduce the risk of harm to the environment and to people and property from natural and induced events.*	$13,137,000
Subtotal	**$62,448,000**
SUSTAINABLE SOCIAL, ECONOMIC AND RECREATIONAL BENEFITS	
• *Support job growth and sustainable employment with innovative environmental management and sustainable resource use.*	$16,477,000
• *Provide opportunities for youth education, employment, and participation in environmental programs and activities.*	$16,133,000
• *Provide diverse recreational and educational opportunities while protecting BC's cultural, landscape and ecological features and resources.*	$43,036,000
• *Complete land use plans for the province, and preserve and enhance environmental quality in urban and high growth areas.*	$6,088,000
• *Maintain provincial conservation and environmental standards, and promote economic opportunities, in treaty processes and on treaty lands.*	$1,413,000
Subtotal	**$83,147,000**
Ministry Total	**$199,403,000**
Additional funds provided during the year	**$5,735,000**
Total	**$205,138,000**

PROGRESS TOWARD GOALS

This annual report, covering the fiscal years 1999/2000 and 2000/2001, represents a new way of reporting on business for the Ministry of Environment, Lands and Parks. The focus is on the ministry's performance rather than its organization. The *Budget Transparency and Accountability Act* requires that ministries have this new reporting approach fully operational by June 2002. Changes to the annual report go hand-in-hand with new requirements for ministry performance plans. The ministry's first such plan, *Business Plan 1999-2001: Strategies for a Healthy Environment*, was released in May 1999 and set performance measures and targets for the period covered by this report.

This section is organized under the four goals and sixteen objectives, set out in the preceding section, that formed the basis for the ministry's business plan. The progress reported here, based on a reporting-out by programs as of March 31, 2001, concentrates on priority activities the ministry undertook between 1999 and 2001 to support its objectives. The ministry also undertakes a wide variety of ongoing functions set out in legislation, regulation or policy. Many are fundamental to ministry operations, but are not necessarily reported here under any one of the sixteen objectives. These include such activities as participation in interagency partnership committees, coordination of environmental impact assessments and referrals, ambient monitoring and reporting, and compliance and enforcement of ministry regulatory requirements.

Selected environmental trends, excerpted from the report *Environmental Trends in British Columbia 2000*, are also included in this section. These "state-of-environment" indicators provide key evidence about environmental trends in particular areas important to the government and the public. They provide a critical link between the performance measures and the ultimate outcomes the ministry is seeking to influence through its priority actions. However, it is not possible for any one organization to be fully accountable for the condition of the natural environment. The indicators help to focus ministry activities strategically by linking ministry efforts to outcomes that are jointly determined by many players and agencies.

GOAL: NATURAL DIVERSITY

Objective: Protect, maintain and restore the diversity of B.C.'s ecosystems and landscapes

British Columbia has the greatest ecological diversity of any province. In addition to its inherent value, this diversity is fundamental to the long-term cultural and economic well-being of British Columbians and their communities.

Thus, the ministry is concerned with the full range of biological and physical diversity in B.C. in and of itself, while working with many partners to ensure that social, economic and outdoor recreational opportunities are sustainable and consistent with a naturally diverse and healthy environment. As well, the province has a global responsibility to meet international commitments such as the Convention on Biological Diversity signed by Canada and 167 other countries following the 1992 Earth Summit.

Acquiring land for protected areas - The Protected Areas Strategy, announced by government in 1993, consists of two goals: Goal 1, to protect 12 per cent of the representative natural diversity of the provincial land base by the year 2000,[1] and Goal 2, to acquire and protect smaller, special natural features not included in Goal 1.

Performance Measure and Target
Acquire 1,000 additional hectares of Goal 2 areas by March 2001. (A total of 378 hectares had been acquired prior to April 1, 1999, when this target was set.)

Progress during 1999/00 and 2000/01
As of March 2001, 2,531 hectares of protected area have been acquired on Vancouver Island by the Province. An additional 796 hectares have been acquired on the mainland. Additional acquisition agreements have been made to acquire more than 1,700 hectares in 2001/02. These negotiations have required a significant amount of effort to meet the target and will result in further work after the exchange agreements have been signed to ensure that all of the conditions are met.

[1] The ministry's role in land-use planning processes that have contributed to the achievement of Goal 1 is covered later in this section, under the ministry goal of Sustainable Social, Economic and Recreational Benefits.

Environmental Trend

By December 2000, British Columbia had exceeded its goal of protecting 12 per cent of its land base.

Source: State of Environment Reporting, Ministry of Environment, Lands and Parks; Land Use Coordination Office, 2001; and BC Parks, 1995

Mapping and designating protected areas - In order to protect the province's natural and cultural resources, significant areas need to be identified, mapped and legally designated as protected areas. After a protected area has been announced, the ministry plays a primary role in preparing protected areas for designation.[2]

Since July 1995, 343 protected areas have been made ready for legal designation. These protected areas were created as a result of the Protected Areas Strategy component of the strategic land use plans of the province. The three-year target identified below is based on ensuring that legal designation proceeds in a timely manner while recognizing the full complexities of land-use plan commitments. BC Parks' responsibility is focused on ensuring protected areas are Order-in-Council or legislation-ready, including ensuring complete and accurate land statusing and mapping standards are in place.

Some protected areas may not be designated due to current land use rights (e.g. mineral tenures, grazing or private land ownership). As well, some of these areas may have their values protected through actions of other jurisdictions such as Regional Districts or the Ministry of Forests).

[2] Listings of new protected areas announced or established during 1999/2000 and 2000/01 can be found in Appendix C, Statistical Summaries.

Performance Measure and Target
Legally designate new protected areas within three years of announcing them.

Progress during 1999/00
- Documentation was completed for 41 protected areas so that they could proceed to designation.
- Seventeen protected areas were not ready for designation within three years of their announcement by government:
  - seven areas had unresolved land use issues that precluded designation as protected areas;
  - ten areas were in the process of being made ready for designation.

Progress during 2000/01
- Documentation was completed for 139 protected areas so that they could proceed to designation.
- Nine protected areas were not ready for designation within three years of their announcement by government:
  - five had unresolved land use issues that preclude designation as protected areas;
  - four areas were in the process of being made ready for designation.

Protecting known values under threat in the currently designated Protected Areas System - BC Parks' management planning program consists of management plans and statements that provide long-term vision and broad strategies, as well as guidance for the day-to-day stewardship, management and development of protected areas.

Management direction statements describe significant protected area values and management issues, and recommend priority objectives, strategies and action to respond to these issues. They provide direction where a more extensive protected area management plan is not required or feasible. Management plans, in contrast, provide a more comprehensive statement of objectives and strategies for the conservation, development, management and interpretation of the protected area, and normally include substantive public involvement in their preparation.

Performance Measures and Targets
- Ensure that a management plan or management direction statement that is less than 10 years old is in place for each designated protected area.

Progress during 1999/00
- The ministry exceeded the 1999/2000 target of completing 20 management plans and management direction statements. Four management plans (Naikoon, Duffey Lake, Churn Creek and Birkenhead Lake parks) and 60 management direction statements were approved.
- At year's end, a total of 124 protected areas (18 per cent of the total number of protected areas) had management plans or management direction statements less than 10 years old.

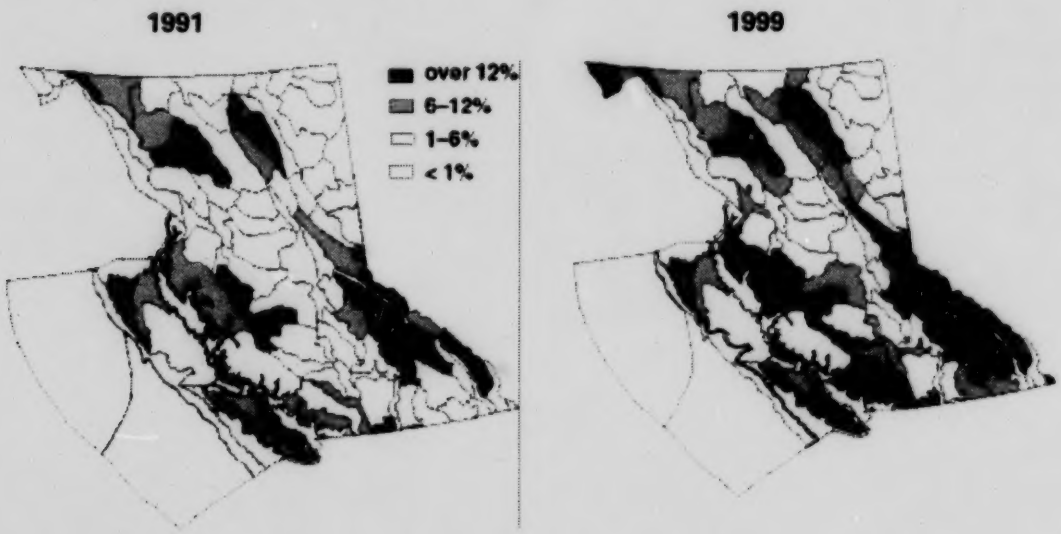
- One management plan was awaiting approval while 124 management plans and management direction statements were in progress.

Progress during 2000/01

- In 2000/01, three management plans and 24 management direction statements were approved, representing 19.7% of the total number of protected areas. However, this fell short of the fiscal year target, completion of 60 plans or statements.
- At year's end, 138 plans or statements were in progress, and approximately 20 per cent of the ongoing management plans were near completion.

Environmental Trend

Percentage of land protected by ecosection



Ecosystem representation in British Columbia has been improving since 1991. Over 50 per cent of terrestrial ecosystems now have greater than six per cent of their area dedicated to protected area status.

Source: *Environmental Trends in British Columbia 2000;* Land Use Coordination Office, 1999

Supporting environmental and resource management through Watersheds BC - Formerly known as the Watershed Ranking Tool, the Watersheds BC project provides decision-makers with easy-to-use information about land and water resources in British Columbia's watersheds. The project seeks to enhance management of water resources and strengthen the ranking process to identify appropriate watersheds for Forest Renewal BC's Watershed Restoration Program. Province-wide Geographic Information System (GIS) databases are summarized on a watershed-unit basis. About 200 measurements are calculated for each watershed unit, many pertaining to the cumulative effects of forest practices.

Performance Measure and Target
Complete initial coverage of the province's watersheds by March 2000.

Progress during 1999/00
- As of March 2000, provincial coverage was complete and was ready for distribution.

Progress during 2000/01
- An accuracy assessment was completed in the summer of 2000 to assist with interpretation of statistical summaries. A second assessment was expected to be completed in May 2001.
- Distribution was delayed due to the need for further discussion, including the use of Watersheds BC, at the Land Information Inventory Coordinating Committee (LIICC).
- A new target has been identified to redefine and reposition Watersheds BC for inclusion in the LIICC Corporate Watershed Atlas initiative by March 2002.

Landscape unit planning - For the purposes of the Forest Practices Code, landscape units are planning areas delineated on the basis of topographic or geographic features. Typically they cover a watershed or series of watersheds, and range in size from 5,000 to 100,000 hectares.

Landscape unit planning is the primary mechanism for the stewardship of biodiversity as required under the Forest Practices Code. Developing landscape unit planning objectives is the joint responsibility of Ministry of Forests district managers and designated staff from the Ministry of Environment, Lands and Parks.

To address those elements of biodiversity most at risk, the initial focus of landscape unit planning is on retention of old growth forests through old growth management areas (OGMAs) and wildlife tree retention. Landscape Unit boundaries and Biodiversity Emphasis Options are confirmed prior to setting land use objectives for OGMAs and wildlife tree retention.

Performance Measure and Target
Establish legal objectives for OGMAs and wildlife tree retention for two-thirds of all Landscape Unit Plans by March 2001.

Progress during 1999/00
- Ten regional Landscape Unit Planning training workshops were completed.
- Regional Landscape Unit Planning Strategies (draft boundaries and emphasis options) were completed jointly by Ministry of Forests and Ministry of Environment, Lands and Parks regions by July 1999.
- The scheduling of first-priority Landscape Units was underway.

Progress during 2000/01
- District data preparation to set old growth management areas and wildlife tree target retention levels has been completed for some districts. District Landscape Unit

Planning teams have been formed in most districts. Draft OGMAs have been located on maps but not yet field checked in some districts.

- Biodiversity objectives have been set for 13 Landscape Units.
- Setting wildlife tree objectives prior to OGMA objectives is possible, but this approach has not been taken thus far .
- Methodology for tracking biodiversity values in Landscape Units, parallel to tracking impacts on the timber harvesting land base, is being developed and is under review.

Formal Forest Practices Code monitoring plan - The ministry is reviewing its management practices and is looking to shift some of its resources from directly assisting in forest operational planning (Forest Development Plans) to emphasize strategic planning and subsequent monitoring, auditing and enforcing of Forest Practices Code noncompliance.

Performance Measure and Target
Undertake active monitoring by regional habitat staff for all forest districts by March 2000.

Progress during 1999/00

- Vancouver Island and Lower Mainland regions made good progress in Forest Practices Code monitoring. In the other regions, ministry resources and staff continued to focus on proactive planning priorities.

Progress during 2000/01

- With the exception of Vancouver Island and Lower Mainland, little progress has been made toward formal monitoring. It is expected that the completion of a provincial compliance and enforcement strategy, scheduled for completion in May 2001, will enable further progress in developing FPC monitoring plans in all forest districts.
- In conjunction with the federal Department of Fisheries and Oceans, the Ministry of Forests and the forest industry, the ministry completed an effectiveness monitoring audit of FPC riparian practices adjacent to small fish-bearing streams in the Kamloops Forest Region. Additional work on stream and riparian audits will continue through 2001-2002.
- An audit of watershed assessment plan procedures under the Forest Practices Code was initiated in January 2001. An evaluation of range practices, conducted jointly with the Ministry of Forests, is planned for 2001/2002.

Objective: Protect, maintain and rehabilitate B.C.'s native wild fish populations and their habitats

The health of fish populations is a strong indicator of the health of the environment as a whole and, for large numbers of British Columbians, this value of fish populations and local stocks surpasses even their high recreational and commercial value.

Important fish habitat areas are being lost at an alarming rate, particularly in the Lower Mainland and the east side of Vancouver Island. For example, Vancouver once had over 60 productive salmon streams; now there are only about six. Protecting fish habitat overlaps with other ministry responsibilities and objectives such as water quality and water allocation.

Implementing Fish Protection Act regulations - Implementation of the *Fish Protection Act* has five main components – riparian protection, sensitive streams, water allocation, debris provisions, and endangered species.

Riparian Protection - One of the primary goals of the *Fish Protection Act* is to protect streamside fish habitat from the pressures of ecologically damaging urban development. The streamside protection regulation will establish minimum streamside protection standards and performance-based objectives for local governments.

Sensitive Streams - Under the *Fish Protection Act*, a "fish-first" policy on formally designated sensitive streams will apply to new water licences that could potentially affect fish production.

Debris Provisions - Consequential amendments to the *Water Act* that protect fish and fish habitat from debris introduced into a stream.

Water Allocation - The instream flow needs of fish are now incorporated into the consideration of applications for traditional water uses such as human, irrigation and commercial uses. Water managers may evaluate the potential impacts of a proposed use on fish and fish habitat. Where there is impact, in order for a license to be approved the applicant may be required to comply with conditions, or to provide appropriate mitigation or compensation.

Endangered Species - For the first time in B.C., fish, as well as aquatic invertebrates and plants that support fish habitat, can be listed as endangered or threatened under the provincial *Wildlife Act*. These provisions for critical habitat protection will enable the development of supporting recovery plans for endangered species.

Performance Measures and Targets

Complete the first round of Orders-in-Council for:

- riparian protection by spring 2000;
- sensitive streams designations by June and December 1999;
- water allocation rules/regulations by December 1999; and
- endangered species by November 2000.

Progress during 1999/00

- *Riparian protection:* Drafts of a Streamside Protection Policy Directive regulation to enable local governments to identify and protect riparian areas, and a riparian classification system, were developed.

- *Sensitive streams:* The regulations and initial set of 15 streams for designation were brought into force in March 2000. The second set of streams was expected to be designated in spring 2001.
- *Water allocation*: Draft water allocation rules were developed in anticipation of focused consultation with stakeholders, completion of water allocation regulations and completion of policies and procedures for general streams during 2000/01.
- *Debris provisions*: Consultation with stakeholders on policies and procedures to protect fish and fish habitat from debris introduced into a stream was expected to commence in spring 2000, and to be completed by fall 2000.
- *Endangered species*: Work was postponed pending ministerial direction on the province's response to the introduction of federal endangered species legislation..

Progress during 2000/01

- *Riparian protection:* Public consultations were completed across the province on the Streamside Protection Policy Directive regulation, and an Order-In-Council was approved on January 19, 2001, bringing related sections of the *Fish Protection Act* into force along with the associated Streamside Protection Regulation.
- *Sensitive streams:* Implementing the regulations, including training staff and preparing an information bulletin for water proposals on sensitive streams is expected to be completed during spring 2001. Initial consultation on the designation of the second set of streams was undertaken in fall 2000. Further consultation is planned for spring 2001 with a fall 2001 target for second round designations.
- *Water allocation:* Broad stakeholder consultation was completed in June/July 2000. A further round of consultation focused on the agriculture industry was completed in October 2000. Additional review and consultation with energy Crown corporations on the proposed Instream Flow Regulation was completed in January/February 2001. The Order-In-Council package was completed in February 2001 and as of March 31, 2001, was awaiting consideration by Cabinet.
- *Debris provisions:* Consultation with stakeholders was carried out, together with additional focussed consultation with the agriculture industry (October 2000) and with energy Crown corporations and the Ministry of Energy and Mines (February 2001). The Debris Exemption Regulation was drafted. The Order-In-Council package was completed in February 2001 and as of March 31, 2001, was awaiting consideration by Cabinet.
- *Endangered species:* The ministry is contemplating changes to the *Wildlife Act* and will undertake inter-ministry and stakeholder/public consultations, pending ministerial direction on the province's response to the introduction of federal endangered species legislation.

Partnering with Ministry of Fisheries, Fisheries Renewal BC, and Department of Fisheries and Oceans on recovery plans - A recovery plan under the *Fish Protection Act* is a plan that provides for the protection and recovery of a protected fish population in a sensitive stream.

Fish recovery plans are required by the Act to assess and address instream flow problems where there is a reasonable prospect of improving the distribution or abundance, or both, of the affected fish species.

Performance Measure and Target
Complete the Fish Recovery Plan pilot by spring 2000.

Progress during 1999/00

- In 1999/2000, 15 designated sensitive streams were identified on which to implement recovery plans (seven on the East Coast of Vancouver Island, seven in the Lower Mainland and one in Omineca-Peace Region).

Progress during 2000/01

- Recovery plan pilot projects have been initiated on two of the designated sensitive streams: Black Creek and Kanaka Creek. Stage II of the Black Creek project has been completed and Stage III initiated. The Kanaka pilot is still working on Stage II, with completion of this stage expected by fall 2001.
- A second set of 15 sensitive streams (10 in the Thompson Basin, and 5 in the Okanagan Basin) have been proposed, with public consultation held in late 2000. Final consultation with Umbrella organizations is to be completed by August 2001, following which a Regulatory Impact Statement and Order-in-Council will be prepared.
- The FPA recovery plan guide draft was completed and is being piloted.

Partnering with BC Hydro and others on water use plans - Water use plans (WUPs) are meant to clarify how rights to provincial water resources should be exercised, and to recognize economic, social and environmental values associated with those resources. A WUP is a document which, when authorized through the *Water Act* process, will define the sustainable operating parameters for water control facilities and associated works, such as those run by BC Hydro.

The ministry is only one of many partners in the development of WUPs. In addition to fish values, WUPs also address First Nations interests, recreation/tourism, power, industrial, transportation and other important water use issues.

Performance Measure and Target
Complete five WUPs for BC Hydro facilities by March 2001.

Progress during 1999/00 and 2000/01

- BC Hydro submitted two WUPs (Alouette and Stave/Ruskin) for approval. Final approval is expected during 2001.
- Projects initiated and at various stages of completion as of March 31, 2001, include Cheakamus, Campbell, Jordan, Coquitlam, Bridge/Seton, Shuswap, Revelstoke/Mica/Keenleyside, Wahleach, Ash, Peace, Seven Mile and Theodosia.

Aquaculture standards - In 1997, the Environmental Assessment Office issued a report on salmon aquaculture recommending that government develop:

- a regulation for performance-based management with clear and consistent standards;
- a requirement for farms to prepare enforceable waste management plans; and
- annual fees based on contaminants discharged by each farm.

The ministry is responsible for preparing a regulation for salmon aquaculture that incorporates these features.

Performance Measure and Target

Prepare the salmon aquaculture waste management regulation by March 2001.

Progress during 1999/00

- The ministry worked with the Ministry of Agriculture, Food, and Fisheries, and British Columbia Assets and Lands Corporation to prepare a development strategy and timeline for the proposed regulation.
- A Strategic Aquaculture Implementation Advisory Committee was appointed by Cabinet to review the progress of the salmon aquaculture policy and provide advice on implementation issues. The committee includes representatives from First Nations, industry, environmental organizations, labour, coastal communities and the federal government.
- The ministry held extensive consultations with the Salmon Farmers' Association, non-member salmon farmers and other interested parties, resulting in an interim monitoring policy needed to develop the final performance-based standards.
- Letters were sent out to individual fish farm operators, requiring them to submit information and to conduct a receiving environment monitoring program.

Progress during 2000/01

- Over 75 per cent of salmon farm sites have submitted some of the required information. However, only about 15 per cent have complied with all of the first phase of the required monitoring program, including focused studies on six farms.
- Results of the year 2000 monitoring will be received and analyzed by November 30, 2001.
- In May 2001 the ministry will be putting another monitoring program in place for the year 2001.
- The target for regulation amendment has been revised to November 30, 2002.

Urban Salmon Habitat Program - This program, part of the BC Salmon Habitat Conservation Plan announced in the fall of 1995, focuses on habitats in urban areas. It encompasses two major initiatives:

- encouraging stewardship projects by providing funding and technical resources to community-based organizations for activities such as assessment and mapping of salmonid habitat, public awareness, education, community-based watershed planning, landowner contact, restoration of urban salmonid streams, and monitoring and evaluation; and
- supporting partnerships between the province and local governments and regional districts through cost-shared funding.

Performance Measure and Target

Complete all projects funded in 1999/2000. Project funding was as follows:

	Local Government (Projects/ funding)	*Community Stewardship (Projects/ funding)*	*Total*
Vancouver Island	10/$235,667	17/$150,919	27/$386,586
Lower Mainland	14/$297,301	14/$236,113	28/$533,414
Total (both regions)	24/$532,968	31/$387,032	55/$920,000

Progress during 1999/2000

- Most of the projects funded in 1999/2000 were completed during that fiscal year, and final reports were being received and evaluated at year's end.

Progress during 2000/2001

- As with previous years, some 1999/2000 projects required carry-over of funding and monitoring into the new fiscal year.
- 2000/2001 project funding was provided as follows:

	Local Government (Projects/ funding)	*Community Stewardship (Projects/ funding)*	*Total*
Vancouver Island	9/$136,547	18/$181,811	27/$318,358
Lower Mainland	13/$251,308	25/$310,683	38/$561/991
Total (both regions)	22/$387,855)	43/$492, 494	55/$880,349
		Training and Appreciation	$20,000
		Program Evaluation Implementation	$19,651
		Total	$920,000

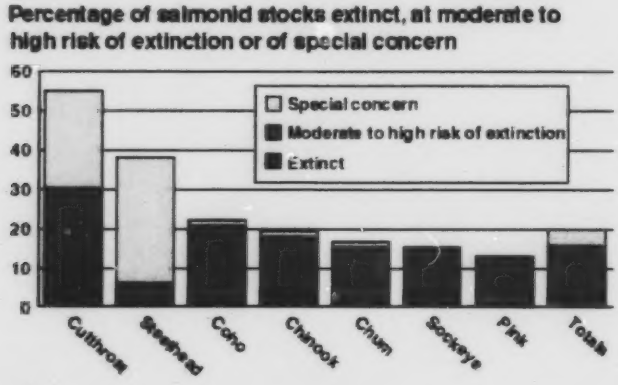
Canada-B.C. Agreement on the Management of Pacific Salmon Fisheries Issues - Under this agreement signed in April 1997, the federal and provincial governments committed to negotiating a new memorandum of understanding providing for habitat protection and enforcement sub-agreements to improve coordination of work in the field.

Performance Measure and Target
Complete habitat protection and enforcement sub-agreements in 1999/2000.

Progress during 1999/00
- The draft habitat protection sub-agreement was completed and circulated to the federal government, ministry executive and regional staff for comment.
- Discussions toward completing the enforcement subagreement have been on hold since summer 1998 because completing the habitat subagreement was given priority.

Progress during 2000/01
- The draft habitat sub-agreement has been completed and signed off by the Premier and Prime Minister. A working group of this ministry, the BC Ministry of Fisheries, and the Department of Fisheries and Oceans is working on the implementation strategy.
- A decision on whether to proceed with a new enforcement sub-agreement will be made by summer 2001, after a review of the issues by ministry staff and their federal counterparts.

Environmental Trend



A total of 844 salmon stocks of about 10,000 investigated in B.C. (eight per cent) have been classified as extinct or at a moderate-to-high risk of extinction.

Source: *Environmental Trends in British Columbia 2000;* Slaney *et al.*, "Status of Anadromous Salmon and Trout in British Columbia and Yukon," *Fisheries*, Vol. 21 No. 10, pp. 20–35, 1996

Objective: Protect, maintain and rehabilitate B.C.'s native wildlife species and their habitats

British Columbia has more species of birds and mammals in total, more species unique to the province, and more species at risk (threatened, endangered, or vulnerable) than any other province or territory. Conserving biodiversity is a provincial, national and global responsibility, especially for threatened and endangered species and those that have disappeared from other parts of their original range but still occur in B.C.

Under the National Accord for the Protection of Species at Risk, each province has a commitment to develop a provincial biodiversity strategy.

Fulfilling commitments under the National Accord - In addition to a biodiversity strategy, the National Accord for the Protection of Species at Risk in Canada commits all provinces and territories to provide protection for threatened or endangered species by measures such as recovery plans, stewardship initiatives and partnerships on both public and private lands.

Performance Measure and Target
Complete the provincial response to the National Accord for the Protection of Species at Risk requirements by March 2001.

Progress during 1999/00 and 2000/01
The Endangered Species Specialist continued to work on this project; however, it was not completed by March 2001 due to its scope and delays associated with the introduction of federal legislation. (The proposed *Species at Risk Act* has been introduced into the federal parliament and passage is expected in 2001.) The specialist continues to work with senior ministry staff, the federal government and other provinces on the national endangered species process.

Developing a Biodiversity Strategy for B.C. - The B.C. Biodiversity Strategy is a commitment to the long-term conservation of native wildlife as stated under the 1994 Provincial Wildlife Strategy. The strategy will be accompanied by a database and mapping system that will summarize wildlife values and threats by watershed and provide an overview of the relative conservation priority for each watershed.

The strategy will provide direction on biodiversity issues to key provincial decision-making processes such as strategic land use planning, landscape unit planning, Forest Development Plan reviews, and environmental assessments.

Performance Measure and Target
Complete the draft B.C. Biodiversity Strategy by March 2001.

Progress during 1999/00
- As of March 2000, the draft strategy concept had been refined.
- Executive-level discussions on the scope of the strategy continued, with the intent of having it summarize all current ministry initiatives that contribute to biodiversity, and to identify provincial-level priority actions for the next three years.

Progress during 2000/01
- A draft report on provincial programs and initiatives for conservation of biodiversity in BC is expected to be completed during spring 2001, for internal ministry review. Once the internal review is completed, the ministry intends to initiate inter-agency discussion, possibly by fall 2001, then consider a stakeholder consultation strategy.
- This high-level strategy document will serve as a framework for the comprehensive biodiversity strategy, and as a report to the Rio +10 meeting in June 2002, showing how the province is meeting its commitment to the Canadian Biodiversity Strategy.
- Simultaneously, the ministry is working on an in-house Gap Analysis study to assess what tools are available in BC to protect biodiversity, and how effective they are. This information will form an integral part of the comprehensive strategy.
- The timing for completion of the comprehensive biodiversity strategy is uncertain, as it depends on further government direction and funding arrangements.

Mapping broad ecosystems - The ministry is undertaking to map provincial ecosystems at a scale of 1:250,000 and 1:500,000 as a basis from which values for selected wildlife species can be determined. Maps at 1:250,000 are used directly in Geographic Information Systems (GIS) analysis for Land and Resource Management Planning (LRMP) processes.

Wildlife-habitat mapping at a strategic level is important for the private sector and ministry staff who make planning decisions that impact wildlife habitat (e.g., forest companies, regional planning staff, treaty negotiators, resident hunters and guide outfitters, and environmental groups).

As of March 1999, Broad Ecosystem Units had been mapped for 75 per cent of the province, including all Land and Resource Management Planning areas. Final edits were complete for 50 per cent of the province.

Performance Measure and Target
Complete province-wide mapping by March 2000.

Progress during 1999/00
- A draft province-wide map (100 per cent) of Broad Ecosystem Units was available in June 1999, up to previous Broad Ecosystem Inventory standards.

- It was anticipated that by March 2001 the entire province would be mapped, to either the hard copy manuscript stage or the digital GIS coverage stage, up to the most current standards, and that draft wildlife habitat ratings would be completed for 14 ungulate species.

Progress during 2000/01

- Broad Ecosystem Inventory mapping was completed as planned, with remapping in the Southern Interior, Kootenay, Skeena, Lower Mainland, Omineca and Peace regions to reflect the changes in Biogeoclimatic Ecosystem Classification (BEC) completed by March 31, 2001. This brings the entire province to the most current Broad Ecosystem Inventory standards.
- The Peace region mapping requires final quality assurance before this area will be loaded in the ministry data warehouse by July 2001. The Lower Mainland and Omineca regions require digitizing and final quality assurance before these areas will be loaded into the ministry data warehouse by fall 2001.

Rare and Endangered Element data system - This data system supports the Conservation Data Centre (CDC) in responding efficiently to information requests from programs such as Land and Resource Management Planning, other levels of resource planning and the Managing Identified Wildlife Initiative.

An "element" may be a species, subspecies, variety, population, mixed-species group (e.g. a seabird-nesting colony), or an ecosystem (e.g. Garry oak woodland). For each rare and endangered element tracked, information such as taxonomy, global, national and provincial ranking, general biology and location information is compiled by a computerized data system with integrated GIS technology.

Performance Measure and Target

Complete the Rare and Endangered Element data system by December 1999.

Progress during 1999/00

- The system was completed in December 1999, and was scheduled to be available online with updated Conservation Data Centre information by May 2000. The information content of the main data warehouse will be updated on a regular basis, and automatically forwarded to regional data warehouses.

Progress during 2000/01

- Reporting of non-sensitive data is now available internally from the data warehouse. The information content of the main warehouse will be updated on a regular basis, and automatically forwarded to regional warehouses. Sensitive data will be available during 2001/02 once data security issues have been resolved.
- All data is better georeferenced, and as inventory improves the precision of known occurrences, these data are updated.
- The Association for Biodiversity Information (international association of CDCs) is presently involved in a $2 million database upgrade project that will see the attribute

data portion of the CDC database migrated to Oracle. This will be available to the BC CDC and bring the CDC fully up to ministry standards.
- Client requests for data system information were up 24 per cent in 2000 over 1999.

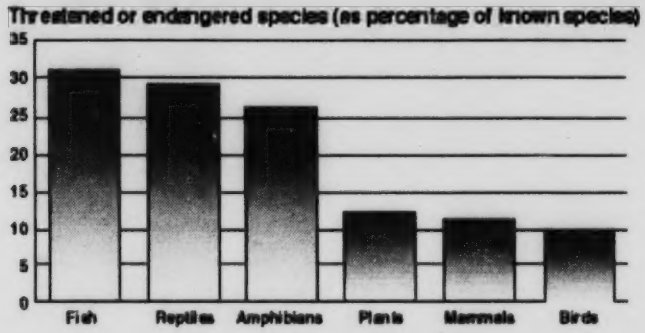
Recovery plans (primarily wildlife) - Under the proposed federal endangered species legislation and the National Accord for the Protection of Species at Risk in Canada, there will be a requirement to produce a recovery plan for an endangered species within one year of designation and a recovery plan for a threatened species within two years of designation. Recovery plans describe the steps that need to be taken to improve a species' status from that of 'species-at-risk'.

Performance Measure and Target
Revise draft recovery plans for spotted owl, mountain caribou and Vancouver Island marmot in 1999/2000.

Progress during 1999/00
- Refining the existing recovery plans proceeded, but none of the targeted plans were completed by the end of fiscal 1999/2000.

Progress during 2000/01
- There has been progress made on recovery planning for mountain caribou, recently placed on the red (threatened or endangered) list, and it is anticipated to be completed in fiscal 2001/2002; timing depends on inter-agency and stakeholder consensus. British Columbia is participating in a national recovery team for boreal caribou and a technical advisory committee has published background documents for mountain caribou.
- A Spotted Owl Management Plan, representing 18 areas of special interest for the owl, was completed. The resulting 18 Resource Management Plans are positioned to become Higher Level Plans under the Forest Practices Code, and some resourcing has been made available for inventory and monitoring work. However, the plan has not yet been implemented regionally and additional spotted owl populations have been discovered which are not covered by the management plan.
- Vancouver Island marmot recovery activities, including captive breeding and fundraising, are proceeding well in concert with stakeholders, but it is too early to predict success with only approximately 40 animals or less left in the wild, and 40 animals in captivity.
- Using additional resources provided during 2000/01, statusing, recovery processes, and partnerships were initiated or accelerated for: 80 species of plants, invertebrates, and birds at risk associated with Garry oak ecosystems; Oregon spotted frog; northern leopard frog; sharptailed snake; American badger; Queen Charlotte goshawk; southern maidenhair fern; four species of butterflies; wolverine; fisher; boreal caribou; and grizzly bear recovery plans for threatened populations.
- Once the federal *Species at Risk Act* is passed later in 2001, there will be increased pressure to prepare and implement recovery plans for other species.

Environmental Trend



About 12 per cent of vascular plants and 15 per cent of vertebrate animals are threatened or endangered in B.C.

Source: *Environmental Trends in British Columbia 2000;* Conservation Data Centre, Ministry of Environment, Lands and Parks, 1999

Wildlife Species Inventory data system and infrastructure - The Wildlife Species Inventory database will provide secure and accessible storage of government-standard, wildlife inventory data and habitat features. Data on wildlife habitat features will help timber licensees plan for the protection of wildlife winter ranges, important wildlife areas (such as nesting sites), and areas used by rare and endangered species.

This data system provides:

- source data for the Conservation Data Centre,
- fundamental input to define priority areas needing protection such as Wildlife Habitat Areas, and
- data for Geographic Information Systems.

Performance Measure and Target

Make the Species Inventory database fully functional by March 2000 and load all available data by March 2001.

Progress during 1999/00

- As of March 2000, 164 species inventory projects were entered into the system and the database became functional at that time.

Progress during 2000/01

- As of December 2000, an update cycle was completed, based on user change requests and the need to upgrade to the latest ministry standards for Oracle. A further 20 projects were added to the system by March 2001, completing the necessary data loading for the year's new inventory projects.

- Some contractors have directly loaded their inventory information; this link has been suspended until alternate access solutions are found.
- There are 440 projects entered where the observational data is not in a searchable form; funds are being sought to address this backlog by March 2003.
- A recent review workshop has created recommendations on the future directions needed to keep this system in use and attentive to user needs.
- Over 150 ministry staff and contractors have been trained in accessing and using the species inventory system.

Identified Wildlife Management Strategy - Certain species that require additional special habitat management to ensure their survival are designated as Identified Wildlife under the Forest Practices Code. The Identified Wildlife Management Strategy is designed to meet the need for stewardship of threatened, endangered, and vulnerable wildlife species and plant communities. A list of Identified Wildlife is being released in two volumes.

As part of this strategy, the Code provides for the identification of wildlife habitat areas (WHAs), which contain critical habitat elements for one or more species of Identified Wildlife and require special management. WHAs are being phased in over a period of time, so as to protect species at risk while at the same time dealing with the reality of a working forest.

Performance Measures and Targets
- Prepare draft volume 2 species list ready for approval in 2000/2001.
- Propose 162 WHAs by March 2001.

Progress during 1999/00
- Identification of volume 2 species and review of the volume 1 species list (released in February 1999) were underway at year's end.

Progress during 2000/01
- The process to identify volume 2 species continued, along with review of the volume 1 list and stakeholder consultation. A draft volume 2 list is expected to be available by summer 2001. The volume 2 species list, accounts and General Wildlife Measures will be ready for statutory decision-makers by the end of 2001.
- The target of 162 WHA proposals has been met. Three WHAs have been approved and over 50 new Wildlife Habitat Areas are currently being completed by regional ministry staff. These proposals will be presented to the statutory decision-makers in June 2001.
- As of March 31, 2001, an additional 115 proposed WHAs were expected to go forward to statutory decision-makers during fiscal 2001/02, following biological review and stakeholder consultation.

Ungulate winter ranges - Winter ranges provide shelter and forage for ungulates (deer and other hoofed animals) during the critical winter and early spring period. The Forest Practices Code has been revised to specifically provide for legal maintenance of winter ranges.

The Timber Supply Review 1 accounts for forest practices that occurred prior to the existence of the Forest Practices Code. Winter ranges within these timber supply areas require mapping at a scale that can easily be incorporated into operational plans, as well as clear objectives so licensees will have greater certainty and understanding of their obligations during operational plan development.

Performance Measure and Target
Map and make available to industry all known ungulate winter ranges by March 2001.

Progress during 1999/00
A memorandum of understanding, designed to facilitate the completion of mapping work, was agreed to by the ministry and the Ministry of Forests by year's end.

Progress during 2000/01
The target has not been met, due to delays in implementing the memorandum of understanding and resourcing issues. However, staff of the two ministries continue to work toward finalizing all Forest Practices Code candidate and grandparented ungulate winter ranges as quickly as possible on a priority basis. The target has been revised to March 2002.

Implementing Special Management Zone objectives and Higher Level Plans - Special Management Zones (SMZs) are areas where:

- the conservation of one or more resource values, such as habitat, recreation, scenery and community watersheds, is a priority; and
- areas where resource development activities may be subject not only to provincial regulations and guidelines, but also to more comprehensive resource stewardship strategies.

Special Management Zones are legal objectives under the Forest Practices Code. If the SMZ objective is above and beyond code requirements, the ministers of Forests and Environment, Lands and Parks may consider appropriate SMZ objectives for a Higher Level Plan (HLP), so they become part of the legal Forest Practices Code framework.

Performance Measures and Targets

- Develop a report to assist regional implementation of Special Management Zone objectives by December 2000.
- Complete or commence the HLP process for SMZs by December 2000.

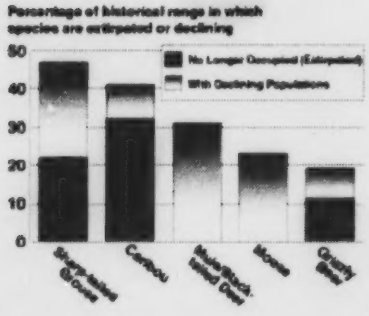
Progress during 1999/00

- A draft report on implementation of Special Management Zone objectives was completed in March 2000 for public review and comment until June 30, 2000.
- Public review of a draft HLP for the Lakes Land and Resource Management Plan (LRMP) was completed, and underway for the Vancouver Island Land Use Plan.
- HLP work was underway for the Kootenay-Boundary LRMP, Bulkley LRMP and for the SMZs in the Lower Mainland for spotted owls.
- Draft HLP policy and procedures were completed for the Prince George and Robson Valley LRMPs.

Progress during 2000/01

- The final SMZ report was completed in January 2001, widely distributed to stakeholders and posted on LUCO's website. The SMZ Working Group's final report includes recommendations for improving the delivery of SMZ objectives province-wide.
- HLP decisions have now also been completed for the Lakes LRMP, Vancouver Island Land Use Plan, Kootenay-Boundary Land Use Plan, and Bulkley LRMP. Final orders have been prepared for these areas. Public review of draft HLP for Cassiar-Iskut-Stikine LRMP is underway. HLP work is underway for Mackenzie and Prince George LRMPs.

Environmental Trend



Several wildlife species, including caribou and Columbian sharp-tailed grouse, no longer occupy significant portions of their historical range since the 1950s. Some wildlife species, such as black-tailed deer and moose, still occupy most of their historical range, although population declines in some areas are of concern.

Source: State of Environment Reporting and Wildlife Branch, Ministry of Environment, Lands and Parks, 2000

Grizzly Bear Recovery Plans and Management Areas - There are currently nine grizzly bear populations designated as threatened in B.C. Under the Grizzly Bear Conservation Strategy, each of these populations will have a recovery plan identifying the actions needed to restore it to long-term viability.

Additionally, the strategy proposes that a network of grizzly bear ecosystems should be preserved as management areas to ensure activities that are not compatible with grizzly bears are either not allowed or carefully controlled. Habitat protection and management within Grizzly Bear Management Areas (GBMAs) would be accomplished through existing

mechanisms such as the Forest Practices Code and Land and Resource Management Plans (LRMPs), and the designation of Wildlife Habitat Areas.

Performance Measures and Targets

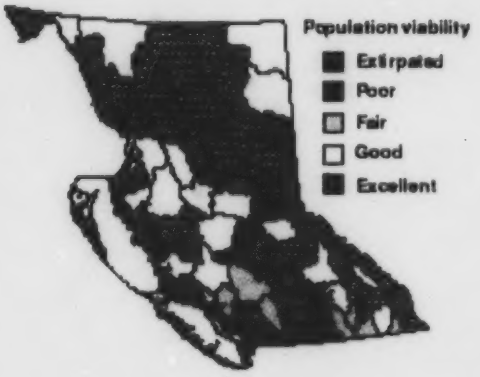
- Draft one Grizzly Bear Recovery Plan and initiate one additional recovery plan by March 2000.
- Complete the Grizzly Bear Management Area review by March 2001.

Progress during 1999/00 and 2000/01

- The draft North Cascades Recovery Plan has been completed and accepted by other agencies, and public consultation has been initiated. Consultation is expected to be completed during the spring of 2001.
- Approval to initiate the second recovery plan will be requested in the fall of 2001.
- The GBMA review has been underway for several years. Completion has not been possible because of competing priorities.

Environmental Trend

Status of grizzly bear population units



Historically, Grizzly Bears ranged over most of North America. Today their range is less than half that area.

Source: State of Environment Reporting and Wildlife Branch, Ministry of Environment, Lands and Parks, 2000

GOAL: HEALTHY AND SAFE LAND, WATER AND AIR

Objective: Anticipate, avoid, reduce or eliminate toxics and wastes reaching the environment

Harmful impacts on air, water and land threaten the natural environment, human health, and our quality of life. The ministry is working to encourage broader involvement and responsibility for anticipating, avoiding, reducing or eliminating these problems, and the

conditions that create them, through policies and programs focusing on waste reduction and avoidance as opposed to waste disposal, and on pollution prevention as opposed to "end-of-pipe" pollution control.

These policies reflect the growing recognition that environmental stewardship results in economic benefits and opportunities. In addition to protecting the environment and conserving resources, reducing or eliminating waste saves clean-up and waste disposal costs, encourages greater efficiency in industry processes, and helps promote a growing environmental industry that markets a variety of innovative pollution-prevention technologies and solutions.

Enhance waste recycling and reduction through stewardship programs -
Product and packaging stewardship programs focus on the collection of various used or leftover products and packages to prevent them from reaching landfills, incinerators or the general environment. Examples of product stewardship programs include: lead-acid batteries and scrap tires (1991); used lubricating oil (1992); paint residuals (1994); pharmaceuticals, solvents, flammables, pesticides and gasoline residuals (1997); and beverage containers (1998).

Performance Measures and Targets (expressed as program forecasts per fiscal or calendar year)

- Transport 750,000 lead acid batteries to recycling facilities.
- Collect 3.3 million tires (expressed as passenger tire equivalents = 8.2kg).
- Achieve a recovery rate of 85 per cent of beverage containers sold (by October 2000).
- Return 7,600 kg of unused pharmaceuticals.
- Return 4.4 million equivalent-litre containers (ELCs) of paint.
- Return 370,000 ELCs of residuals (solvents, flammable liquids, pesticides, gasoline).

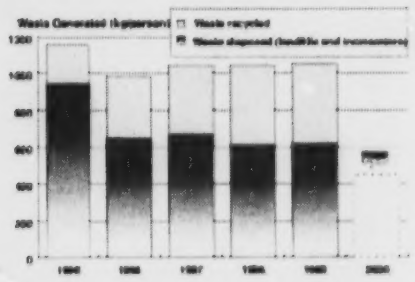
Progress during 1999/00

- Both the battery and tire exceeded their targets: 791,104 batteries were taken to recycling facilities and 3,324,024 passenger tire equivalents were collected as of March 31, 2000.
- On October 1, 1999, aseptic, gabletop and plastic pouch drink containers were added to the beverage container deposit and refund program, which added an estimated 84 million new containers.
- As of December 31, 1999, a recovery rate of 75 per cent had been achieved for non-alcoholic beverage containers over the preceding 15 months. The rates for beer and for other alcoholic beverages (reporting from April 1999 through March 2000) were 95 and 85 per cent respectively.
- 11,500 kg of leftover pharmaceauticals were collected in 1999/00
- Waste paint generated 3.9 million equivalent-litre containers in 1999.
- Residuals generated 127,529 equivalent-litre containers in 1999.

Progress during 2000/01

- Both the battery and tire programs continued to exceed their targets: batteries, 751,655 units as of March 31, 2001; tires, 3,423,666 passenger tire equivalents as of March 31, 2001.
- Beverage containers: the industry stewards reported an overall annual recovery rate of 84 per cent on sales of 1.5 billion containers.
- Pharmaceuticals: In 2000, administration of the pharmaceuticals stewardship program changed (now called the Medications Return Program) and the reporting period changed to a calendar year. Collection results for 2000 are down from 1999/00 at a total of 9,500 kg, but remain above the initial target.
- Paint: 4.0 million Equivalent Litre Containers (ELCs) were collected in 2000. The collection of paint has levelled off over the last two years, which is an expected trend for this mature stewardship program, after accumulated inventories had been reduced and education activity had raised consumer awareness about the cost of generating residuals.
- Residuals: a drop in collection to 87,000 ELCs was reported for 2000. Industry has initiated an analysis of the collection data for solvents, flammable liquids and pesticides to better determine the influences that have led to this drop in the quantity of returned residuals.
- Lubricating oil, filters and containers: consultations are continuing on the development of a new industry product stewardship program for these products. The Canadian Petroleum Products Institute has offered to design and implement a program for B.C. modelled on those already operating in Alberta, Saskatchewan and Manitoba.

Environmental Trend



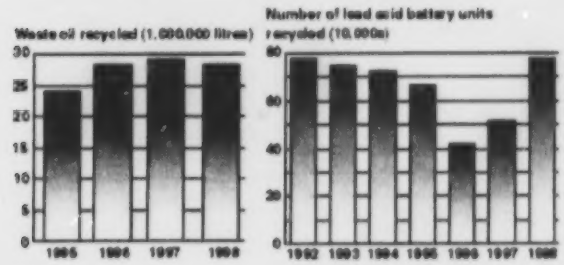
Between 1990 and 1998, British Columbians achieved a 36 per cent reduction in the per capita amount of municipal solid waste going to landfills or incinerators.

Source: State of Environment Reporting; Pollution Prevention and Remediation Branch, Ministry of Environment, Lands and Parks, 2001

(2000 data will be available in the fall of 2001.)

Environmental Trend

Results of product stewardship programs



Product stewardship initiatives involve industry and consumers taking responsibility for waste from the products they produce or use. Significant amounts of many types of reusable and recyclable materials, however, are still disposed of in landfills and incinerators.

Source: *Environmental Trends in British Columbia 2000;* Pollution Prevention and Remediation Branch, Ministry of Environment, Lands and Parks, 1999

Industrial and small business pollution prevention planning and municipal liquid waste management planning - Pollution prevention (P2) planning is designed to help ensure better environmental stewardship by industry and small business, and promote integration of environmental, economic and social factors in decision-making. A three-year pilot P2 Demonstration Project involving six companies from major industrial sectors was initiated in 1996 as a foundation for implementing P2 province-wide. An intergovernmental working group was formed in 1997 to develop a framework for promoting P2 among small businesses in B.C.

Each regional district and municipality undertakes a liquid waste management plan (LWMP) that covers all aspects of liquid waste and its management. The development of the plan involves extensive consultation with the public. Once approved, the plan provides local governments with more direct responsibility for municipal liquid waste discharges in their communities.

Performance Measures and Targets

- Release the Pollution Prevention Planning Pilot Report in 1999/2000, and complete the six pollution-prevention plans by March 2001.
- Ensure that 75 per cent of the population is covered by Liquid Waste Management Plans (LWMPs) by March 2001.

Progress during 1999/00

Pollution prevention plans:

- On April 21, 1999, the industry Pollution Prevention Planning Demonstration Project steering committee released its final report that includes recommendations on a model for P2 planning and how to proceed toward implementing full-scale industrial pollution prevention planning in B.C.
- Pilot projects with two small business sectors, the printing industry and the automotive service and repair industry, were initiated.
- The six companies participating in the pilot project was completed ahead of schedule.

Liquid waste management plans:

- At year's end, a total of 43 LWMPs were in progress or were previously approved and covered 62 per cent of the B.C. population.

Progress during 2000/01

Pollution prevention plans:

- P2 planning is an ongoing process of continual improvement following the initial plan development phase. Accordingly, the six companies are now at various stages of implementing and updating their P2 plans. In addition, some of the companies have developed and implemented environmental management systems with a strong P2 planning component.
- A multi-stakeholder committee was created to make recommendations to the Minister on how to further implement P2 planning for large industry in B.C.
- The small business pilot project with the printing industry continued with the preparation of draft environmental management guides and best management practices, and development of a web site. The automotive service and repair industry pilot was ongoing, with development of a profile of the industry as an initial step.

Liquid waste management plans:

- 64 per cent of the BC population is now covered by 29 LWMPs currently in progress. If these local government LWMPs (especially GVRD and Capital Regional District Core Area plans) are completed on their revised schedules, the target of 75 per cent of BC's population covered with LWMPs will be met by December 2001.

Preventing non-point source pollution - Non-point source (NPS) water pollution is a subtle, gradual and cumulative problem caused by runoff that flows from farmers' fields, logging roads, poorly maintained on-site sewage systems, home gardens and city streets. In 1999, the ministry released a non-point source (NPS) water pollution action plan (*Tackling Non-Point Source Water Pollution in British Columbia: An Action Plan*). The action plan explains the province's commitment to managing NPS pollution problems, and identifies 20 specific actions the ministry and other partners are taking to address NPS pollution in B.C. The ministry is delivering NPS actions through pilot projects in selected areas.

Additionally, the ministry committed to prepare a compendium summarizing best management practices (BMPs) to prevent NPS water pollution, using examples from both

B.C. and other jurisdictions and covering a wide range of operational activities and economic sectors.

Performance Measures and Targets

- Complete five non-point source action plan projects in 1999/2000.
- Publicly release non-point source BMP compendium in 1999/2000.

Progress during 1999/00

Non-Point Source Water Pollution Action Plan projects:

- The ministry exceeded its target and ten projects were selected and successfully completed.

Best Management Practices Compendium:

- The ministry did not meet its original target of releasing the BMP compendium in fiscal 1999/2000. When released, the program will ensure that the compendium is consistent with documentation from other sources, and reflects local government priorities in B.C.

Progress during 2000/01

Non-Point Source Water Pollution Action Plan projects:

- Nine new projects were completed .
- The ministry has also partnered with Environment Canada and others in 15 NPS projects through the Georgia Basin Ecosystem Initiative.

Best Management Practices Compendium:

- The first phase of the compendium (municipal) has been completed and reviewed by regional staff and local government representatives. Completion of required changes is anticipated by June 30, 2001.

Objective: Protect and improve the quality of B.C.'s land

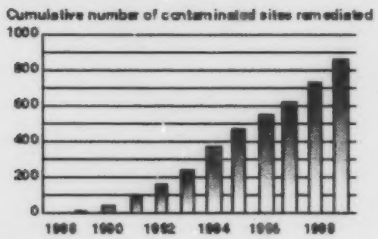
In the past, certain commercial and industrial activities have resulted in spills or deposit of chemicals onto land. At some locations, toxic substances such as PCBs, lead and cadmium are still present in soil, surface water, and groundwater at levels posing a threat to the environment, human health, and even to the safety of underground services. These types of sites are considered contaminated if they are unsuitable for specific land or water uses.

New *Waste Management Act* regulations for contaminated sites came into effect in April 1997. Their purpose is to:

- ensure environmental protection;
- bring uniformity to the administration of contaminated sites;
- establish requirements for site remediation, assessment and soil relocation;
- provide flexible standards to measure remediation efforts;
- provide easy access to site information; and
- present clear and predictable circumstances for liability for site cleanup.

Regional ministry staff are at the forefront of administering contaminated sites in British Columbia. They deal directly with sites through inspections, reviewing and approving reports and plans, issuing permits, and enforcing legal controls. The ministry also develops contaminated sites procedures, policies, laws, regulations and standards, and provides an online public registry of sites that have been screened, investigated or cleaned up across the province.

Environmental Trend



Between 1988 and 1999, a total of 5,122 contaminated sites were identified and 867 were cleaned up.

Source: *Environmental Trends in British Columbia 2000;* Pollution Prevention Branch, Ministry of Environment, Lands and Parks, 1999

Objective: Ensure a sustained and healthy water resource for B.C.

British Columbians recognize values in water that go far beyond domestic, industrial and agricultural uses. They appreciate its spiritual, aesthetic and recreational values, and understand its fundamental importance to the natural environment and all life.

British Columbia is blessed with some of the cleanest and most abundant water supplies in the world, yet with population growth and increasing development, B.C.'s water resource – both its quality and quantity – is under stress.

The provincial Freshwater Strategy, released on November 1999, provides an overview of the future direction of water management in B.C. Based on extensive consultation throughout the 1990s, the strategy addresses a range of issues including drinking water protection, groundwater management, water pricing, managing activities around surface water, water allocation, floodplain management, and water conservation.

An important component of the Freshwater Strategy was the release in January 2001 of a draft drinking water protection plan for B.C. The plan was the subject of consultations with stakeholders and the general public in ten communities. The input obtained from these meetings contributed to the drafting of drinking water protection legislation. (*The Drinking Water Protection Act* passed third reading on April 11, 2001.)

Water Purveyors - An operator's manual for small water purveyors in B.C. is needed to upgrade operation and maintenance practices in small community water systems. The manual is an essential component of an integrated drinking water protection strategy for the province and complements the provincial water conservation strategy.

Performance Measure and Target
Complete and distribute water purveyor operator's manual in 1999/2000.

Progress during 1999/00
- A consultant was hired to prepare the operator's manual.

Progress during 2000/01
- A draft manual has been prepared for distribution and review in April 2001.

Aquifer Protection projects - Approximately 750,000 people in British Columbia depend on groundwater sources for their drinking water supplies. Most usable groundwater comes from aquifers – natural water-bearing geologic formations or subsurface reservoirs. Aquifer protection projects, led by local governments or local community stewardship groups, are designed to safeguard a community's drinking water.

Performance Measure and Target
Complete three aquifer protection projects by 2001.

Progress during 1999/00
All projects were on schedule by year's end:
- A Well Protection Toolkit was scheduled for distribution in April 2000 to water purveyors, environmental health officials and government agencies. Three workshops on Groundwater Protection Planning were held in Duncan, Whistler and Langley during 1999/2000.
- The Phase I report on issues and proposed activities for the Hornby Island Protection Plan was completed and the Phase II community-based Groundwater Protection Committee was established.
- The ministry continued to provide technical support to the Grand Forks Aquifer Protection Plan, including an August 1999 report delineating capture zone boundaries of community wells to assist the community-based aquifer protection committee.

Progress during 2000/01
- Further workshops on Groundwater Protection Planning were held in Prince George and Vernon.
- Phase II of the Hornby Island Protection Plan commenced with establishment of community-based Groundwater Protection Committee. A hydrogeological study by Simon Fraser University was begun in 2000 to enhance groundwater knowledge for the plan, and a draft report was completed February 12, 2001. Groundwater protection and supply recommendations have been included in the draft Official Community Plan released January 22, 2001.

- Staff continued to carry out community outreach on aquifer protection in Grand Forks, during 2000/01, including a public meeting and a workshop on the Well Protection Toolkit.
- Community aquifer protection projects on Hornby Island and at Grand Forks will continue beyond 2001.

Major Aquifer Inventory - An inventory of major developed aquifers was continued to identify, delineate and classify each aquifer's level of groundwater use and vulnerability to contamination. The classification provides a framework for prioritizing aquifer protection planning, and implementing management initiatives, particularly for drinking water supplies. The principal areas for aquifer classification include Okanagan-Shuswap, Prince George, Cariboo and Peace River regions.

Performance Measure and Target
Inventory 100 additional aquifers by March 2001.

Progress during 1999/00
- Progress continued on schedule with 78 additional aquifers classified and mapped in 1999/2000, and the inventory updated on the ministry Internet site.

Progress during 2000/01
- The target was met ahead of schedule; 44 additional aquifers were classified and mapped in 2000-2001 and the internet site updated. The level of activity was increased through partnership with Comox-Strathcona Regional District and the ministry's Lower Mainland Region.

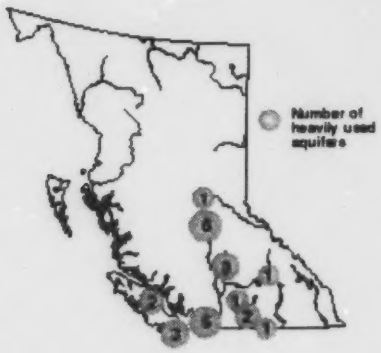
Aquifer-monitoring stations - The ministry maintains a province-wide network of 150 observation wells that record fluctuations in groundwater levels and water quality. This information is used for assessing the impacts of groundwater pumping and other land-use activities and assisting in water-supply forecasting during periods of drought.

Business Plan Target
Establish 10 additional aquifer-monitoring stations by March 2001.

Progress during 1999/00 and 2000/01
- The target was attained: in cooperation with well owners, ten new monitoring stations have been added to the network at Lantzville, Cache Creek (2 sites), Prince George, Arbutus Ridge, Quesnel, Oliver and Metchosin, Mill Bay and Belcara.

Environmental Trend

Where is groundwater demand highest in British Columbia?

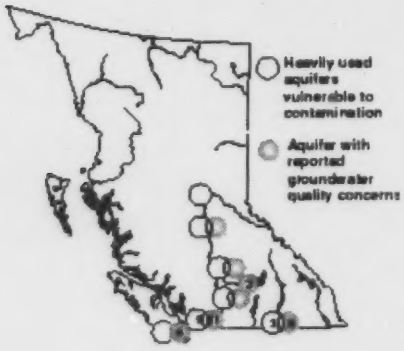


The total number of heavily used aquifers is now 26 (up from 17 in 1996). The majority of these aquifers are in the Fraser Valley, the east coast of Vancouver Island and the Southern Interior.

Source: *Environmental Trends in British Columbia 2000;* Water Management Branch, Ministry of Environment, Lands and Parks, 1999

Environmental Trend

Is British Columbia's groundwater contaminated?



One in three classified aquifers in B.C. is potentially vulnerable to contamination.

Source: *Environmental Trends in British Columbia 2000;* Water Management Branch, Ministry of Environment, Lands and Parks, 1999

Forest Practices Code water quality objectives policy and procedures - The Auditor General's April 1999 report on protecting drinking water sources recommended that ". . . the province develop water quality objectives for all community watersheds as a matter of priority." There are approximately 500 community watersheds – twelve with set water quality objectives. New streamlined policy and procedures for setting water quality objectives specific to forestry activities were proposed to help meet the Auditor General's recommendation.

Performance Measure and Target
Establish water quality objectives in critical watersheds in all regions by March 2001.

Progress during 1999/00

- The policy and procedures for establishing WQOs using the traditional approach have been accepted by this ministry and the Ministry of Forests. A new streamlined procedure was piloted in selected watersheds, for further review by the Forest Practices Code Joint Management Committee in 2000/2001.

Progress during 2000/01

- The streamlined procedure continues under review. The target date for establishing WQOs in critical watersheds in all regions has been amended to March 2002.

Watershed Assessment Procedure Guidelines - Watershed Assessment Procedure Guidelines referenced in the *Forest Practices Code of B.C. Act* determine the cumulative effects of forest practices on watershed hydrology. Revisions to the original Water Assessment Procedure Guidelines, Interior and Coastal Guidebooks, began in January 1997.

Performance Measure and Target
Complete the revised Watershed Assessment Procedure Guidelines in 1999.

Progress during 1999/00
The guidelines document was completed in April 1999 and is available on Ministry of Forests' Forest Practices Code web site. The new guidelines enable assessments to be completed in one field season and reduce the cost of the original assessment procedure.

Access to water information - The demand for water licences has increased in recent years as a result of an increase in development across the province. The Water Information Sharing (WINS) project was initiated in 1995 to accelerate the water licensing process and to keep pace with demand for water information from resource companies (complying with the regulations of the Forest Practices Code), government agencies, land developers and the general public.

Performance Measure and Target
Establish Internet access to water information by March 2001.

Progress during 1999/00
Work on the Internet access project was postponed during 1999/2000 due to design changes in the WINS application. However, a joint federal/provincial cost-sharing initiative established a web site with real-time access to river flows and lake levels in the province, and enhanced, user-friendly Internet access has been provided for provincial water licence data since March 1999.

Progress during 2000/01
- Integrated Access and WINS/2 projects have been replaced by the Mapping Strategy (spatial water rights maps). Pilot projects are currently underway in Lower Mainland region to improve capture of water rights spatial data digitally. The strategy will be implemented across all ministry regions in 2001.
- The web-based Water Licences Query was upgraded and the Stream Notation (i.e., Reserves/Restrictions) report made available; both can be accessed via links on the Water Rights Home Page (http://www.elp.gov.bc.ca/wat/wrs/surface.html).

Environmental Trend

Consumptive Water Use

Water licences specify the maximum volume of water that may be used for a given purpose. Holders of water licenses for power production, including storage for power production, are the largest non-consumptive users of surface freshwater in the province.

Source: *Environmental Trends in British Columbia 2000;* Water Management Branch, Ministry of Environment, Lands and Parks, 1999

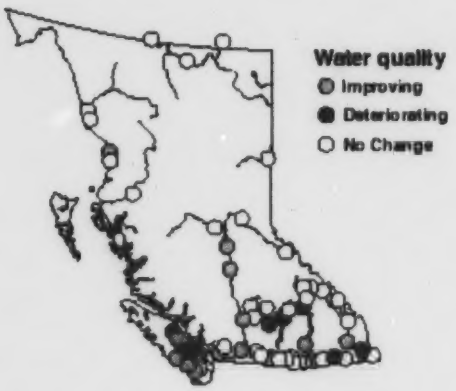
Federal/Provincial trend monitoring - The ministry and Environment Canada have prepared a draft report titled "Trends in Water Quality in British Columbia," based mainly on data collected under the Canada-B.C. Water Quality Monitoring Agreement between 1985 and 1997.

Monitoring stations were established on a priority basis where human activities have a high potential of negatively impacting water quality. The report assesses long-term water quality trends and other concerns at 133 monitoring stations in 68 water bodies (lakes, streams and aquifers) in B.C.

Performance Measure and Target
Complete the water quality report in 1999/2000.

Progress during 1999/00 and 2000/01
The report was completed during 1999/00 and released jointly with Environment Canada in July 2000.

Environmental Trend



Since 1985, water quality in British Columbia has remained stable at 60 per cent of monitoring stations, improved at 29 per cent and deteriorated at 11 per cent.

Source: *Environmental Trends in British Columbia 2000;* Water Management Branch, Ministry of Environment, Lands and Parks, 1999

Objective: Protect and improve B.C.'s air quality, and contribute to meeting global air objectives

British Columbia's clean air program works to achieve and maintain clean and healthy air for present and future generations and to reduce the risks associated with global atmospheric issues. In addition to addressing local air quality issues, B.C. has a responsibility to do its part to reduce greenhouse gas emissions that contribute to climate change, and control the harmful effects of ozone depleting substances.

The program provides leadership, technical and scientific expertise, and resource management tools to address local, regional, provincial, national and international atmospheric issues. It does so through partnerships with other agencies, other levels of government, industry, stakeholder groups and the public.

In addition to addressing local air quality issues, B.C. also has a responsibility to do its part to reduce greenhouse gas emissions that contribute to climate change, and control the harmful effects of ozone depleting substances.

Addressing global air issues - The Kyoto Protocol (1997) sets limits on greenhouse gas emissions from industrialized countries. In April 1998, Canada's federal and provincial environment and energy ministers established the national climate change process to consult stakeholders on the implications of the Kyoto Protocol and develop a national implementation strategy to meet Canada's Kyoto targets.

A national action plan for ozone depleting substances (ODS) was endorsed by federal and provincial environment ministers in January 1998.

Performance Measure and Target

- Implement B.C. actions within six months of approval from the joint meeting of the ministers of environment and energy for climate change.
- Fulfil the province's commitments under the ODS National Action Plan.

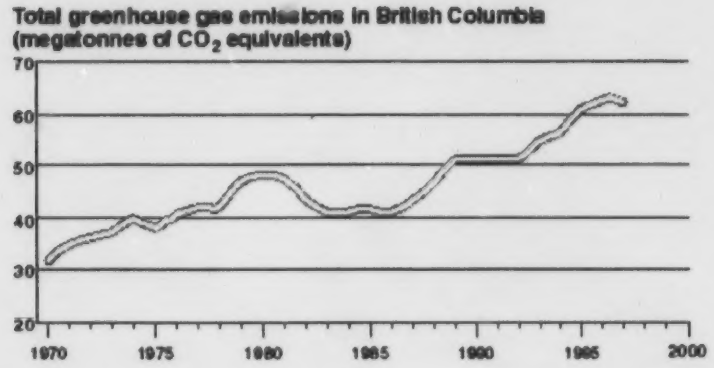
Progress during 1999/00

- B.C. government and non-governmental organizations have been actively involved in the national climate change process. At their March 2000 joint meeting, the ministers of environment and energy approved the key elements of the national implementation strategy and asked officials to finalize the strategy and the first business plan for approval at the fall 2000 meeting. Ministers also agreed to develop a framework agreement to govern federal-provincial-territorial cooperation on climate change.
- Recommendations made in September 1999 by the B.C. Greenhouse Gas Forum, a multi-sectoral advisory group, continue to be implemented, primarily through the Green Economy Initiative.
- In February 2000, the B.C. Ministers of Environment and Energy requested that the Greenhouse Gas Forum provide initial views on promising emission reduction measures to prepare them for the March 2000 meeting. The forum's report was received on March 23, 2000.
- The Ozone Depleting Substances and other Halocarbons Regulation was amended in November 1999 to fulfil the province's commitments under the ODS National Action Plan.

Progress during 2000/01

- In October, 2000, government released the British Columbia Climate Change Business Plan 2000/01-2002/03, presenting a three-year commitment to action to reduce greenhouse gas emissions and lay the groundwork for future climate change decisions. The plan includes $13.4 million in new funding for implementation. The plan builds on two years of consultation with key stakeholders through the BC Greenhouse Gas Forum, as well as involvement of 15 provincial agencies.
- Implementation of the plan is underway with actions being taken by a broad spectrum of ministries across government. Through the end of fiscal year 2000/01, projects have been initiated in all five priority areas of the business plan (transportation, energy and industry, communities and buildings, forests and agriculture, and broad supporting actions such as public education and outreach).

Environmental Trend



Human activities, such as the burning of fossil fuels, are adding significant quantities of carbon dioxide and other greenhouse gases to the earth's atmosphere. The scientific community has concluded that elevated levels of greenhouse gases are causing changes to the global climate

Source: *Environmental Trends in British Columbia 2000;* Environment Canada, 1999

Addressing urban smog, fine particulates and other air pollutants - The Canada-Wide Environmental Standards Subagreement provides a framework for federal, provincial and territorial ministers of environment to collectively set common standards on six substances (particulate matter, ground-level ozone, dioxins and furans, mercury, petroleum hydrocarbons in soil, and benzene) to reduce health risks and protect the environment.

Performance Measure and Target

Complete the provincial implementation plan for ozone and particulate matter within six months of the Canadian Council of Ministers of Environment's approval for Canada-wide standards.

Progress during 1999/00

- The proposed Canada-Wide Standards for ozone and particulate matter, including a numeric limit, a timeline for attaining this limit, and a protocol for reporting to the public on progress, were presented to the Canadian Council of Ministers of the Environment (CCME) in November 1999. Ministers requested consideration of additional options prior to approval, anticipated in spring 2000.

Progress during 2000/01

- In June 2000, CCME ministers approved Canada-Wide Standards for ozone and particulate matter, and joint initial actions to address them.

- Federal/provincial coordination of the implementation phase is proceeding through a Joint Action Implementation Coordination Committee, which reports through CCME. Through this process, analysis of emission reduction options for a number of sectors is being conducted, although not on the timeframe envisaged in the current BC target.
- Exploratory discussions between the ministry, Environment Canada, the Greater Vancouver Regional District (GVRD) and their Washington state counterparts have confirmed interest in working together on an international airshed management plan for the Lower Fraser Valley, and in expanding the concept to include a Georgia Basin/Puget Sound geographic scope
- Phase 1 of a study to assess options for reducing greenhouse gases and other air pollutants is complete for the GVRD, and a phase 2 extension to include the Fraser Valley Regional District is underway, and planned to be complete this year. Some resources have been identified to expand this work to the Sunshine Coast and east coast of Vancouver Island.

Environmental Trend

Where are the risks to health from fine particulates?

Communities in the interior of the province are exposed to high concentrations of fine particulates more often than communities in the more populated southern areas. Topography, air circulation patterns, settlement patterns and the location of industries all affect the concentrations of fine particulates in local airsheds.

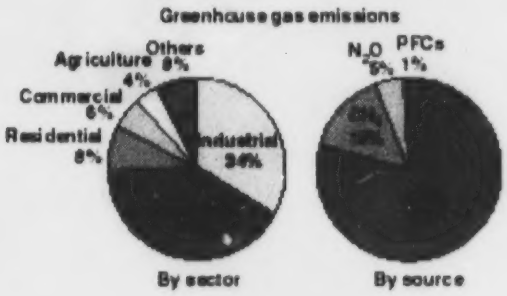
Source: Environmental Trends in British Columbia 2000; Air Data and Monitoring System Database, Ministry of Environment, Lands and Parks, 1999.

Encouraging clean transportation - Proposed amendments to the Motor Vehicle Emission Reduction Regulation and the Cleaner Gasoline Regulation will harmonize B.C. standards for gasoline sulphur with federal standards and modify the detergent additive requirements.

Performance Measures and Targets
Complete amendments to the Motor Vehicle Emission Reduction Regulation and the Cleaner Gasoline Regulation in 1999/2000.

Progress during 1999/00 and 2000/01
- Cabinet approved the amendments to the Motor Vehicle Emission Reduction Regulation in July 1999. Cabinet approved the amendments to the Cleaner Gasoline Regulation in October 1999.
- Further amendments will be required as the recently gazetted ten-year federal agenda for vehicles and fuels begins to be implemented.

Environmental Trend



Transportation is the single largest source of greenhouse gas emissions in the province. In order to reduce total emissions, significant reductions in emissions from the transportation sector will be required including reductions in the distance travelled per vehicle, the number of vehicles travelling, and emissions per vehicle.

Source: *Environmental Trends in British Columbia 2000;* Environment Canada, 1999

Improving public awareness - Since 1992, Clean Air Day has been proclaimed in B.C. on the Wednesday of National Environment week each year. The theme for National Environment Week and Clean Air Day is climate change/air quality and community action. B.C.'s Clean Air Day message is that actions to address climate change will also improve local air quality and public health.

Performance Measure and Target
Profile early actions and greenhouse gas emission reduction success stories with several partners as part of Clean Air Day.

Progress during 1999/00 and 2000/01
- Clean Air Day was successfully coordinated on June 2, 1999 and June 7, 2000, with financial assistance from the federal Climate Change Action Fund (CCAF) of $80,000 in 2000. In 1999, activities included commuter challenges in several BC communities, and public awareness events in Victoria, Greater Vancouver, Kelowna, Whistler and Nelson to profile climate change and solutions. In 2000, activities were also funded in Nanaimo, Kamloops and Prince George, in addition to centres involved in 1999. Planning for

Clean Air Day 2001 is now underway with partners across the province and jurisdictions across Canada.

- In 1999/2000, several BC-based outreach projects were approved for CCAF funding. Ministry staff worked with partners on six projects: a Canadian Climate Change Calculator website, a Climate Change Science poster, Go Green coordinators' training, a High School Trip Reduction Program, community energy planning workshops and the Canada Commuter Challenge.
- Public education and outreach actions identified in the British Columbia Climate Change Business Plan 2000/01–2002/03 are all underway, including continuing to work with partners on CCAF-funded projects, a Knowledge Network TV series, school projects and public education materials.

Objective: Reduce the risk of harm to the environment and to people and property from natural and induced events

Information and expertise provided by the ministry facilitates the integration of land use management in floodplains, structural flood protection works, and emergency planning and response across agencies and governments. The ministry works closely with the Ministry of Transportation and Highways and the Ministry of the Attorney General (Provincial Emergency Program) in managing flood safety.

Conflicts between people and wildlife, particularly bears, represent a further area where the ministry is increasing its emphasis on preventive approaches. During 2000, Conservation Officers received 278 grizzly bear complaints and 8,373 black bear complaints. Of these, 11 grizzlies and 69 black bears were relocated; 52 grizzlies and 690 black bears were killed. Improved waste disposal practices and better public awareness – for example, through Bear Aware programs being implemented in some communities – can help to reduce harm to both humans and bears.

Dam owner inspection reports - Under the *Water Act*, the ministry's Dam Safety Program ensures that dams in B.C. are designed, constructed, operated, maintained, rehabilitated and removed safely.

During the reporting period (February 2000) a new Dam Safety Regulation was introduced, requiring greater direct involvement of dam owners in performing inspections and submitting reports, while the ministry's responsibility would shift to auditing, enforcement education, and awareness activities.

Performance Measure and Target
Inspection of 100 per cent of "very high consequence of failure" dams by March 2001.

Progress during 1999/00 and 2000/01
- The Dam Safety Regulation was proclaimed on February 11, 2000. An increased level of vigilance by dam owners is now mandatory.
- There are 27 "very high consequence" dams in the province and annual reports have been received from 71 per cent of them. Information has been mailed to all dam owners in BC to inform them of requirements. Dam Safety Officers in Victoria and regions continue to audit and monitor dams in B.C.

Dike owner inspection reports - The *Dike Maintenance Act* regulates the activities of local diking authorities. The diking authorities in B.C. are: municipal governments or regional districts (61); improvement districts (17); diking districts (5); and First Nations, industry, commercial, and other (39).

The new approach for flood hazard management is to bring all flood protection works under the management of a local diking authority that would submit accurate inspection reports, ensure dikes are well maintained and continue to deliver full benefits during flood events.

Performance Measure and Targets
Ensure that 50 per cent of dike owners submit accurate safety inspection reports in 1999/2000 and 75 per cent in 2000/2001.

Progress during 1999/00 and 2000/01
- 39 percent of dike owners submitted accurate and adequate inspection reports by March 31, 2001. Although behind schedule, the program published a Dike Inspection Guide and seminars were held throughout the province in December 2000 and January 2001 to assist dike owners in inspecting and operating their dikes. Victoria and Regional Deputy Inspectors of Dikes continue to audit and monitor diking authorities in BC.

Emergency response planning - The *Emergency Program Act* (EPA) requires that local authorities prepare emergency response plans, however, regional districts are allowed discretion. The plan is an important document to codify local knowledge and capabilities to deal with emergency situations.

The provincial government has responsibilities under EPA regulations for emergency flood response at the provincial level both in unorganized areas and when local capabilities are exceeded. Part of the ministry's role is to assist local authorities to improve their emergency preparedness and response capabilities.

Performance Measure and Target
Emergency response plans in place for 90 per cent of local governments by March 2001.

Progress during 1999/00 and 2000/01

- Seventy-five percent of local governments had current emergency response plans as of March 31, 2001 – the same proportion as one year previously. The Provincial Emergency Program is working with local governments to increase that percentage. Seminars were held in December 2000 and January 2001 throughout the province and will support diking authorities in the development of their response plans.
- A Flood Planning and Response Guide for local government has been prepared and distributed. The ministry is continuing to work with Provincial Emergency Program to encourage local government to prepare emergency response plans.

Flood Protection Assistance Fund - This fund provides financial assistance to improve public safety in communities at risk from flooding and erosion, and reduce the potential for future flood damage.

Performance Measure and Target
Complete approximately 50 flood protection projects in 1999/2000.

Progress during 1999/00
As of March 31, 2001, 30 of the approved Flood Protection Assistance Fund Projects had been completed. The projects not completed under the fund were withdrawn due to timing, fisheries issues or other constraints.

GOAL: SUSTAINABLE SOCIAL, ECONOMIC AND RECREATIONAL BENEFITS

Objective: Support job growth and sustainable employment with innovative environmental management and sustainable resource use

In 1999 the government announced the Green Economy Initiative, a long term strategy to help B.C. businesses succeed in today's greener global economy, support B.C. communities in their transition toward a more sustainable economy and a cleaner environment, and motivate British Columbians to incorporate environmental values into their daily lives. It is now a cross-government initiative coordinated by a small secretariat reporting to the Minister of Environment, Lands and Parks. The initial emphasis of the initiative has been on building green industries, clean energy and consultation on environmental tax shifting policies.

Implementation of the Green Economy Initiative, in partnership with other-agencies, is a major priority for the ministry, and complements the development of new ministry policies and regulations that encourage industry innovation, higher environmental standards, and broader stewardship. In turn, these new approaches to delivery of ministry programs and services complement the government's broader Streamlining Initiative, which is designed to reduce the cumulative regulatory burden without compromising the very important public protection objectives of regulation.

Implementing the Green Economy Initiative - A key activity identified in the ministry's business plan has been to work with a number of partners to implement demonstration projects showcasing innovative technologies or processes, particularly in the pollution prevention area, and supported by the Green Economy Initiative.

Performance Measure and Target
Support five demonstration projects of new technologies or processes by December 2000.

Progress during 1999/00
At the end of 1999/2000, the ministry expected to meet the December 2000 target. Two sewage demonstration projects were underway:

- A project in Langford demonstrating new sewage treatment technology, supported by a provincial loan guarantee. The septage plant is now operational.
- A project at JFK Airport in New York demonstrating new sewage treatment technology developed by a B.C. company was also supported by a provincial loan guarantee.

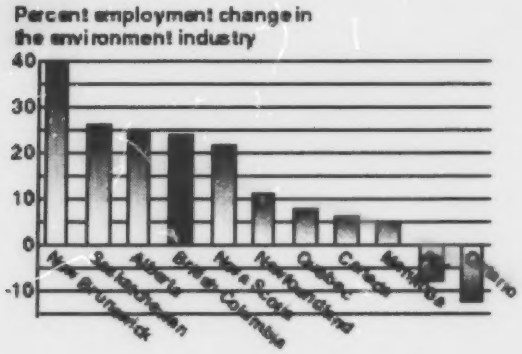
Progress during 2000/01

- In addition to two projects aided by the Green Economy Initiative in fiscal 1999/00 (both receiving provincial loan guarantees), a third project was supported by the Green Economy Development Fund (GEDF) by the December 2000 target – a project in Ladysmith demonstrating innovative sewage treatment technology.
- An additional seven Green Development Fund demonstration projects were approved and announced by the end of fiscal 2000/01:
  - An innovative plant shelter for forestry seedlings. The company is based in Prince Rupert and plant shelters are being demonstrated in the Queen Charlotte Islands, Terrace, Vancouver Island, Scotland and France
  - An energy-efficient and environmentally friendly wood-drying process that has application in other industries such as food and plastics). The company is based in Vancouver and the Kootenays
  - A project to demonstrate the cost effectiveness of using the ocean to assist in heating and cooling a building at Brentwood College in Mill Bay.
  - Utilization of woodwaste for the production of natural resins for use in the manufacture of oriented strand board, plywood and other engineered wood products. The project partners are in the Cariboo and Vancouver

- A stationary diesel engine generator retro-fitted to burn natural gas in place of diesel fuel. The company is based in Vancouver.
- A land-based project in Sointula to demonstrate that local abalone can be commercially cultured.
- Use of a waste treatment technology to upgrade an existing wastewater treatment plant in Powell River BC.

- In addition to projects supported by the GEDF, the infrastructure grant funding from the Ministry of Municipal Affairs gave high priority to innovative projects, and several were approved and funded in summer/fall 2000. As well, several companies received the benefits of tax credits under the Green Venture Capital Program; while not strictly 'demonstrations of new technology', many of these represent leading-edge green solutions.

Environmental Trend



The Globe Foundation has identified enforcement of current environmental standards and the development of new standards as the top two forces influencing growth in environmental industries.

Source: *Environmental Trends in British Columbia 2000;* Statistics Canada, 1998 and 1999

Streamlining authorizations - New *Waste Management Act* regulations were under various stages of development during the reporting period, designed to replace the existing permit system and help alleviate major backlogs in permit issuing.

The new Municipal Sewage Regulation provides for environmental benefits through improved water quality, environmental standards, and water conservation. The regulation will eventually eliminate approximately 800 permits, about 25 per cent of all permits under the *Waste Management Act*, and reduce time expected to obtain the authority to discharge sewage while protecting water quality.

The proposed Organic Matter Recycling Regulation, designed to replace the Production and Use of Compost Regulation, would control large-scale recycling of organic matter derived from municipal solid waste. The new regulation would support technical innovations that produce low-cost, high-quality recycled organic matter that can be used safely for soil amendment and land reclamation, rather than disposed of as a waste.

The proposed Industrial Pollution Prevention Regulation would eliminate duplication between present regulations (the Special Waste Regulation and the Contaminated Sites Regulation) and between public processes such as permits and the environmental assessment review process – thus streamlining administration, and minimizing costs and time delays inherent in the permit application and appeal processes.

Performance Measure and Targets

Enact new pollution prevention regulations under the *Waste Management Act:*

- Municipal Sewage Regulation by December 1999
- Selected Organic Matter Recycling Regulation by 2000
- Industrial Pollution Prevention Regulation by December 2000.

Progress during 1999/00

- On July 15, 1999, the Municipal Sewage Regulation became effective. A multi-stakeholder committee was formed to assist with successful implementation of the regulation.

Progress during 2000/01

- Work on the Organic Matter Recycling Regulation (OMRR) is substantially complete and awaited final government approval. OMRR Application Guidelines for Medical Health Officers, which will help support the successful implementation of the regulation, will be complete by December 2001.
- The Industrial Pollution Prevention Regulation is now scheduled for March 2002.
- Successful completion of both are reliant on consultation with, and support from, key stakeholders.
- Other regulatory reform streamlining regulations currently under development include:
  - a detailed review of the contaminated sites provisions of the *Waste Management Act* and Contaminated Sites Regulation in response to a request from the Business Task Force
  - annual amendments to the Contaminated Sites Regulation
  - a detailed review of the provisions of the *Pesticide Control Act* and Pesticide Control Act Regulation, in response to a request from the Business Task Force
  - a new Aquaculture Regulation
  - a new regulation for the management of pulp mill biomass.

Replacing prescriptive permits with regulations and other authorizations - The *Waste Management Act* currently prohibits discharges to the environment unless they are authorized by a regulation, permit, approval, order, or waste management plan. A new regulation is proposed that would reduce the need for approximately 9,000 site-specific permits to less than 100, reducing paperwork and time delays related to both permit issuance and appeals, while still protecting environmental values.

Performance Measure and Target
Eliminate the need for 8,900 permits by March 2000.

Progress during 1999/00
- The new Municipal Sewage Regulation sets the stage for eliminating over 800 existing permits and the need to issue permits for all future sewage discharges related to new developments.

Progress during 2000/01
- There were 34 discharges registered under the Municipal Sewage Regulation as of March 1, 2001. The ministry's multi-stakeholder implementation committee has completed four major documents (Environmental Impact Study Guidelines, Assurance Plan Guidelines, Compliance Guideline and Code of Practice for the Use of Reclaimed Water) which will help support the successful implementation of the regulation.
- Additional 'outcome-based' regulations and other authorizations are being considered to further eliminate the need for other permits. The target for eliminating the need for most of the 8,900 permits was tentatively revised from March 2000 to March 2004 to provide further time for stakeholder consultation and any follow-up regulatory and related actions that may be required.

The Cost Driver Initiative - The Ministry of Forests has initiated a province-wide strategy, the Cost Driver Initiative, to reduce the amount that the forest industry spends on delivering wood (excluding stumpage charges). The strategy was also developed to reduce government administration and operational costs, while maintaining environmental or forest management objectives as identified in the Forest Practices Code.

Performance Measure and Target
Achieve cost reduction targets in the forest industry that are within acceptable levels of environmental risk, across all forest districts by March 2001.

Progress during 1999/00 and 2000/01
Industry across the province has achieved a number of cost savings to date. Ministry regional and headquarters staff reviewed and commented on some proposals from the Ministry of Forests and industry. Regions are implementing some changes.

Objective: Provide opportunities for youth education, employment, and participation in environmental programs and activities

The ministry has undertaken several initiatives to provide environmental education and training in the environment and outdoor recreation fields for youth. Environment Youth Team (E-Team) projects provide on-the-job training, the Eco-Education/Grizz-Ed teams provide in-school education programs, and the Wild BC workshops provide educators with environmental education programs, resources and activities.

E-Team programs - To support the government's priority of protecting and creating jobs, the ministry is undertaking initiatives to reduce youth unemployment. E-Team projects provide the opportunity for young people to protect and enhance the environment while gaining skills and experience that will make them more employable. The ministry provides wages and support costs, while sponsors provide training and pay for other related costs.

Performance Measure and Target
Employ 1,700 participants (ages 16 to 24) in E-Team programs for 1999/2000, and 1,370 participants in 2000/01.

Progress during 1999/00
A total of 1,755 youth positions were created in 1999/2000, exceeding the target by 55 positions.

Progress during 2000/01
A $9.25 million budget resulted in the creation of 1,491 youth positions, exceeding the target by 121 positions.

Eco-Education/Grizz-Ed activities - The Eco-Education/Grizz Ed Program is a key component of the ministry's strategy to reduce pollution and solid waste in the province, promote grizzly bear conservation, and raise awareness about environmental issues.

The program consists of four Green Teams that travel province-wide providing students in grades four through seven with a day-long, in-class educational experience. The teams provide students and teachers with information on waste reduction, environmental protection, grizzly bear conservation and safety, and water conservation.

Performance Measure and Target
Deliver Eco-Education and Grizz-Ed activities to 13,000 participants in 1999/2000.

Progress during 1999/00 and 2000/01

- The business plan target was met for the 1999/00 school year (September to June) and the program continued on target for 500 classroom visits and 13,000 participants in the 2000/01 school year.
- A resource package being developed in conjunction with Environment Canada entitled "Eco-Education in Action" will be finalized and made available to schools in 2001. This will provide a means to reach students and teachers who do not receive a crew visit.

Developing learning resources and interpretation programs for educators - Wild BC, a project of the Habitat Conservation Trust Fund, provides ministry-sponsored, environmental education programs and resources to B.C.'s educators that foster appreciation, knowledge and understanding of biological diversity, and increase ecological literacy. In addition, the workshops provide a venue in which educators can practise games or activities before introducing them into the classroom, and share the experience with other participants.

Performance Measure and Target

Offer 75 workshops to educators in 1999/2000.

Progress during 1999/00

- The target of 75 workshops was reached for the period April 1999 to March 2000. Workshop participation numbers for the year, 981, were consistent with past trends.
- A large number of other presentations and special events were conducted around the province, with about 10,000 people exposed to these activities.

Progress during 2000/01

- New resources being developed include a bog educators guide, a draft kokanee educators guide and a watershed music CD and guide for teachers. Completed learning resources include Forests in Focus (in partnership with the Ministry of Forests), new editions of Backyard Biodiversity and the Ground Truth Studies Teacher's Handbook and reprints of materials on protected areas, wildlife trees and water stewardship.

Objective: Provide diverse recreational and educational opportunities while protecting B.C.'s cultural, landscape and ecological features and resources

British Columbians enjoy an outstanding variety of family vacation opportunities and other seasonal and year-round activities in natural surroundings – a significant benefit in terms of both quality of life and human health. Access to well managed recreation areas has major economic benefits from tourism and ecotourism, and provides economic opportunities to rural communities.

Improving campground access in high demand areas - High public demand for experiencing British Columbia's provincial parks was evident in the increase from 1998 to 1999 in campsite reservations. To meet the increased demand, the government announced it

would assist more British Columbians in accessing affordable vacation experiences through the two-year (1998/1999) Campgrounds BC initiative.

Performance Measure and Target
Develop 1,300 new campsites by March 31, 2000 (500 in 1998/1999 and 800 in 1999/2000). (Note: the original two-year target of 1,500 was reduced during 1999/2000 when some funds were reassigned for maintenance of existing facilities.)

Progress during 1999/00
- BC Parks met the first year's target of 500 new campsites by the end of fiscal 1998/99. A total of 824 campsites were completed in 1999/2000. The two-year target was exceeded, with 1,326 campsites completed and open to the public by March 31, 2000.
- Additionally, to address the overall upgrading of aging and inadequate infrastructure, $4.2 million was spent on facility maintenance/facility revitalization; representing an investment of one per cent of the capital plant value of $417 million.

Managing camping, day use, backcountry boating, and interpretative and educational opportunities - BC Parks provides a world-class camping and day-use experience across the province, promoted through both global advertising and word-of-mouth.

In 2000, BC Parks recorded almost 23.5 million visits to provincial parks. Attendance at education and interpretation programs reached almost 210,000 participants in 1999/2000 with 57,700 youth participating in youth-specific programs.

BC Parks involves a large number of individuals and organizations in its work. This involvement results in increased understanding, commitment and support for protected area values. The number of volunteers increased by 15 percent from 2496 in 1999 to almost 2,900 in 2000.

BC Parks is committed to providing visitors with a safe, enjoyable park visit and has been conducting an annual visitor satisfaction survey since 1985. The visitor satisfaction index focuses on five campground facilities and services deemed the most important by campground visitors: cleanliness of restrooms, cleanliness of grounds, condition of facilities, sense of security, and control of noise.

Performance Measure and Target
Achieve excellent or above-average ratings for park facilities and services from 75 per cent of park users.

Progress during 1999/00 and 2000/01
- The target was exceeded in both years, with an 82 per cent positive response in 1999, and 79 per cent in 2000.

Objective: Complete land use plans for the province, and preserve and enhance environmental quality in urban and high growth areas

The ministry has played a key role in regional and sub-regional land-use planning processes that have contributed to the expansion of protected areas in rural and wilderness British Columbia while ensuring sustainable resource management in the areas not protected. B.C. passed the 12 per cent protection target in November 2000.

Urban growth strategies are as important as wilderness protection measures in preserving and enhancing environmental quality. The ministry continues to participate with regional and local governments in urban growth and settlement planning.

Mapping changes in the provincial land base - Baseline Thematic Mapping (BTM) is a program initiated by Geographic Data BC. The BTM Land Use Program incorporates a variety of data sources producing a digital thematic map depicting land use at a scale of 1:250,000. Changes in provincial land use can be monitored by satellite and digitally mapped from satellite imagery according to 20 land use classes defined for the province.

Performance Measures and Targets

- Complete initial provincial coverage by March 2000.
- Complete mapping changes to achieve 20 per cent coverage by March 2000 and 30 per cent by March 2001.

Progress during 1999/00 and 2000/01

- The initial coverage target, 100 per cent by March 2000, was met.
- Land use changes for 17 per cent of the province were mapped by March 2000, and for 25 per cent of the province by March 2001.
- The areas now mapped include the East Coast of Vancouver Island, the Vancouver/Georgia Basin area, Prince George and Kamloops.
- Target dates for completion of mapping changes have been revised to:
  - 2001: 25% of the province
  - 2002: 40% of the province
  - 2003: 60% of the province
  - 2004: 80% of the province
  - 2005: 100% of the province

Land-use planning - The ministry is participating in land and resource planning tables to develop and implement Land and Resource Management Plans, Regional Growth Strategies, Integrated Watershed Management Plans and Forest Practices Code Higher Level Plans.

Land and Resource Management Plans (LRMPs) form the sub-regional planning component of the Provincial Land Use Strategy. They require public participation, inter-agency coordination, and consensus-based land and resource management decisions. LRMPs consider all resource values while implementing key provincial initiatives such as the Grizzly Bear Conservation Strategy, the Mountain Caribou Conservation Strategy, the Identified Wildlife Management Strategy, and fish protection initiatives.

LRMPs may specify management guidelines for landscape unit planning under the Forest Practices Code, water management planning, and Crown land and commercial backcountry recreation planning. In addition, LRMPs may recommend areas for protection and conservation measures for environmental resources.

The *Growth Strategies Act* lays out the ground rules for Regional Growth Strategies (RGS). A RGS is a regional vision that commits affected municipalities and regional districts to meeting common social, economic and environmental objectives.

Integrated Watershed Management Plans (IWMPs) are multi-stakeholder planning processes that generate plans to manage land-use activities within a community watershed with the primary objective of protecting drinking water.

Higher Level Plans (HLPs) are part of the Forest Practices Code forestry planning hierarchy that establish resource management objectives and provide strategic direction to on-the-ground operational forestry plans, such as the Special Resource Management Zone for Spotted Owl Management on the Lower Mainland.

Performance Measure and Target
Develop or implement over 30 land and resource plans during 1999/2000.

Progress during 1999/00
As of March 31, 2000:

- Twelve LRMPs and three regional plans had been approved and were being implemented.
- Five LRMPs were under development and one LRMP was in the technical development stage.
- Ministry staff continued to participate in development or implementation of each of the RGSs that had either been adopted or were being developed.
- IWMPs had been approved for the Stawamus River/Mashiter Creek watersheds (District of Squamish) and the Haslam Lake/Lang Creek watersheds (Powell River). Chapman/Grey was proceeding.
- A workplan was under development to identify Higher Level Plan content from all approved land use plans. Two HLPs (Kootenay-Boundary and Bulkley) were under development and two (Lakes and the Vancouver Island Land Use Plan) were under public review and nearing completion.

Progress during 2000/01

As of March 31, 2001:

- Fifteen LRMPs and three regional plans have been approved and are being implemented. Two LRMPs have completed phase 1 and are in the phase 2 planning process (Central Coast and Lillooet)
- Discussions are underway with first Nations regarding an approach to planning for the Queen Charlotte Islands, the North Coast and completion of the Central Coast.
- 85 per cent of the province now has approved or nearly completed strategic land use plans (either LRMPs or regional plans), or planning underway. Areas yet to be planned are: Atlin-Taku, Morice, North Coast, Queen Charlotte Islands, Merritt, Sea-to-Sky and Sunshine Coast. Some scoping has been done for all of these areas.
- Development and establishment of Higher Level Plans is proceeding according to the workplan. Four HLPs have been formally, legally established by ministers (Lakes, Vancouver Island, Bulkley and Kootenay-Boundary). A draft HLP for Cassiar-Iskut-Stikine has undergone public review and comment. Six more HLPs are under development (Mackenzie, Prince George, Okanagan-Shuswap, Kalum, Upper Kispiox/Seven Sisters and Revelstoke).
- Ministry staff continue to work closely with local governments to develop environmental guidelines for voluntary application by municipalities, including through bylaws and Official Community Plans.
- Implementation of the IWMPs for Stawamus River/Mashiter Creek and Haslam Lake/Lang Creek watersheds has proceeded positively since they were signed off. Unresolved issues in Chapman/Grey continue to prevent it from being signed off as expected.

Objective: Maintain provincial conservation and environmental standards, and promote economic opportunities, in treaty processes and on treaty lands

The ministry provides support to the provincial government with advice on conservation and other environmental issues on a growing number of treaties and treaty related interim measures being negotiated and ratified between the province, the federal government and First Nations. Numerous ministry-related treaty chapters are currently under development.

Agreements are also negotiated directly between the ministry and some First Nations on better ways of consulting on matters potentially affecting aboriginal rights, as outlined in the Delgamuukw Supreme Court decision, including several for cooperative management of parks, fish and wildlife.

Negotiating interim measures with First Nations - For several years, the Northern Nations Summit (NNS) has requested changes to the Wildlife Hunting Regulations to address perceived over-harvest of moose from increasing numbers of resident hunters in the northern Skeena region.

Negotiations with the NNS have led to an agreement that: 1) a senior policy review committee would be formed to provide policy direction on wildlife management in the northern portions of B.C., 2) a wildlife working group would be established to deal with operational issues, and 3) a wildlife harvest study would be initiated with the support of the NNS.

With the support of the NNS, ministry staff will gather aboriginal harvest information and combine it with non-aboriginal harvest data in the northern Skeena region. This information will be used for Ministry of Aboriginal Affairs treaty processes and ministry regional wildlife management operations.

Performance Measure and Target
Make Northern Wildlife Harvest Project operational by March 2000.

Progress during 1999/00
- The operational committee met several times, and agreed to a harvest study methodology and fine tuning implementation of roadside rut closures for hunting.
- A contractor was hired to provide overall coordination of the harvest study, and to hire and train community coordinators and interviewers, including Environment Youth Team (EYT) members. Community interviews were completed, and the contractor submitted a report in April 2000, summarizing harvest data collected during the 1999/2000 survey.

Progress during 2000/01
- The project is now operational. The second harvest study has been done, the contractor has summarized the First Nations harvest data, and maps summarizing total harvest were generated for use in addressing wildlife management issues.
- The operational committee continues to meet, and will be reviewing the data to assess implications for regulatory changes next year. The policy committee has not met regularly and it has been recommended to set two regular meetings per year for the 2001/02 fiscal year.
- The NNS continue to discuss concerns over the level of community involvement in the survey and commitment to voluntary compliance with the rut closure regulations.
- This project and related MOU is one of many such agreements with First Nations being facilitated by the ministry.

Provide information and advice to treaty negotiators, and participating directly in treaty negotiations - On August 4, 1998, representatives of the Province of B.C., the Nisga'a Tribal Council and the Government of Canada initialled the Nisga'a Final Agreement in a ceremony in the Nass Valley. All three parties must ratify the agreement for it to become a treaty. The Nisga'a Final Agreement comprises a number of chapters, some of

which are on environment, lands and parks issues including land access, wildlife and migratory birds, environmental assessment and protection.

Over the next few years, a number of treaties and agreements-in-principle will be negotiated and ratified between the province, the federal government and First Nations. The province's involvement includes providing information and advice to treaty negotiators and participating directly in treaty negotiations, especially in the development of treaty chapters that pertain to environment, lands and parks issues.

Performance Measure and Target

- Develop approximately 15 ministry-related treaty chapters by January 2001.

Progress during 1999/00

- The *Nisga'a Final Agreement Act* was passed in the Legislature on April 22, 1999. The federal legislation, Bill C-9, was approved in the House of Commons on December 13, 1999, ratified by the Senate and received Royal Assent on April 13, 2000. The ministry's involvement with this Agreement now focuses on implementation and a plan is in place.
- Input was completed on nine ministry-related chapters of the Sechelt Agreement-in-Principle, signed April 16, 1999 and work continued on chapters of the Final Agreement. The Sechelt Band is engaged in extensive community consultation on the Agreement in Principle during which trilateral negotiations are in abeyance.
- The ministry signed off on the land offer to the Ditidaht/Pacheedaht, prior to being tabled on October 26, 1999. Negotiations are on hold until issues are resolved.
- The ministry signed off on the land offer to the In-SHUCK-ch N'Quat'qua, prior to being tabled on October 29, 1999. The First Nation rejected the offer but negotiations may resume in early summer.
- The ministry signed off on the land offer to the Snuneymuxw (Nanaimo), prior to being tabled on January 17, 2000. Negotiations were on hold until April when issues were resolved.
- The ministry signed off on the land offer to the Sliammon, prior to being tabled on January 28, 2000. No work is being done on the chapter language until land and cash issues have been resolved.
- Specific progress on the ministry-related chapters for Agreements in Principle:
  - Input completed on eight generic chapters prepared for discussion at the Kwakiutl Laich Kwil Tach table.
  - Three Lheidli' T'enneh chapters in mid to late stages of drafting.
  - Two Tsay Keh Dene chapters in early stages of drafting.
  - Two Cariboo chapters in mid stages of drafting.
  - Seven Pavilion chapters in early to mid stages of drafting.
  - One Ktunaxa Kinbasket chapter in the early stages of drafting.
  - One Gitanyow chapter in the middle stages of drafting.
  - One Haisla chapter in the early stages and one in mid stage of drafting.
  - One Heiltsuk chapter in the middle stage of drafting.
  - One Wet'suwet'en chapter in the early stage of drafting.

Progress during 2000/01

- Parties have not been at the Sechelt negotiating table since May, 2000, although chief negotiators have met several times. BC remains committed to concluding a Final Agreement with Sechelt based on the signed Agreement-in-Principle and draft Final Agreement.
- Work continued on 54 ministry-related chapters at 15 other treaty tables.
- In an attempt to speed the treaty process, focus at several tables shifted from chapter development to preparation of land and cash proposals and to implementation of treaty related measures.
- Five more land proposals were analyzed by the Ministry and completed: Lheidli-T'enneh, Nuu Chah Nulth, Tsay Keh Dene, Tsawwassen, and Xaxlip.
- Seven treaty related measures, involving the Ministry of Environment, Lands and Parks, were implemented at six tables: Cowichan, Kaska Dena, Lheidli'T'enneh, Nuu Chah Nulth, Tsay Keh Dene, and Wet'suwet'en.
- Two agreements-in-principle requiring Ministry input were signed: Sliammon, February 24, 2001, and Nuu Chah Nulth, March 16, 2001.
- The Crown Land Registry Services Branch was instrumental in the surveys of Nisga'a Lands, surveys of lands as part of the McLeod Lake Adhesion Agreement and surveys of other lands for various treaty tables.

GOAL: RESPONSIVE AND ADAPTIVE ORGANIZATION

This goal, which supports the three previous mandate goals, expresses the desire to support and recognize innovative and responsive ministry programs, and involving all staff in seeking the best results for the environment and the public.

Initially, Adaptive Service Delivery in the ministry focused on implementing projects that would contribute to more effective delivery of core activities, either through internal adjustments and adaptations, or through use of internal and external partnerships. In year two of the plan, the focus shifted to initiatives that help to foster a work culture of trust, continuous improvement and anticipation of client needs.

Progress during 1999/00

- During the year, each division and branch undertook a comprehensive review of its systems, core business and service delivery options. Adaptive approaches that were contemplated included partnership arrangements to share stewardship responsibilities, arrangements for formal assignment of responsibility, and increased internal service efficiencies.
- Numerous projects of varying scale were identified, based on their potential for successful delivery. Examples include:

- Geographic Data BC: partnerships for production of Provincial Baseline Atlas products with clients in the forest and oil and gas sectors, First Nations groups and the federal government.
- Omineca-Peace Region: waste management permit for the Westcoast Energy natural Gas Transmission.
- Pollution Prevention and Remediation Branch: pollution prevention planning and regulatory reform.
- Establishing a steering group of Environment, Lands and Parks and Ministry of Health staff to develop, guide and coordinate implementation of provincial air management strategies, and to develop a model for local air management partnerships based on voluntarily prepared airshed plans.
- Drafting a discussion paper as a first step toward developing and implementing a compliance strategy for the ministry that considers both short-term enforcement actions and longer-term ministry objectives.
- Improved efficiencies in financial management and a financial best practices review. Subsequent implementation throughout the ministry has included training for affected staff and the redesigning of systems as Web applications.

Progress during 2000/01

- Throughout the year, a major emphasis was placed on improved internal communications, including development of the 'portal' aspect of the ministry's Intranet home page. Between May 1999 and May 2000 both the number of staff using the ministry's Intranet and the number of internal web pages have more than doubled. The Executive continues to make use of the site to provide information to staff on topics of ministry-wide interest, with appropriate feedback opportunities.
- A business process review of recruitment and classification was undertaken in 2000, and a project team established within the Human Resources Branch to implement its recommendations. The improved processes are on schedule to be rolled out and become the ministry operating standard in the fall of 2001.
- A steering committee met regularly throughout late 2000 and early 2001 to develop a human resource strategy. The committee has identified a vision and supporting values to define how ministry staff interact and support one another as they work to deliver the ministry's operational objectives. The final draft of the strategy will be tabled for executive approval in June 2001.
- The ministry's Information System Steering Committee worked on an information management/ information technology (IM/IT) management strategy tied to the ministry's performance plans and Infosmart objectives. The committee will make recommendations to Executive in summer 2001 for priority actions for a comprehensive, integrated approach to IM/IT that will meet service delivery needs and expectations through E-government.

APPENDICES

Appendix A

Affiliated Agencies, Boards and Commissions

The Ministry of Environment, Lands and Parks works closely with the following government offices created to support provincial sustainability initiatives.

Land Use Coordination Office
The Land Use Coordination Office (LUCO) was created in January 1994 to define a corporate vision for land use planning in British Columbia and to oversee, coordinate, evaluate and report to Cabinet on ministries' work to deliver the provincial land-use strategy. LUCO's mandate is to improve corporate direction and coordination of all inter-ministry strategic land-use planning initiatives.
Inquiries: 250 356-5342

Environmental Assessment Office
This agency coordinates assessment of the impacts of major development proposals in the mining, tourism, energy, transportation, industrial, waste and other sectors. Environmental, economic, social, cultural, heritage and health effects are all considered in the review process. The review process results in recommendations to the Minister of Environment, Lands and Parks and a second appropriate minister, to either grant or refuse a project approval certificate.
Inquiries: 250 356-7441

Green Economy Secretariat
This small cross-government organization was established in September 1999 to provide coordination and support to the Green Economy Initiative, a long-term strategy to help B.C. businesses succeed in today's greener global economy, support B.C. communities in their transition toward a more sustainable economy and a cleaner environment, and motivate British Columbians to incorporate environmental values into their daily lives.
Inquiries: 250 387-1949

The following agencies, boards and commissions report to the Minister of Environment, Lands and Parks in an advisory, operational or regulatory capacity.

B.C. Heritage Rivers Board
This five-member board, whose term expired on March 31, 2001, consulted with key interests to identify provincially significant rivers on the basis of their natural heritage, cultural heritage and recreational values. It made its recommendations to the provincial cabinet through annual reporting and meetings with the minister. A Heritage Rivers System Advisor has been appointed to continue providing advice on heritage rivers matters to the minister for a term of three years.
Contact: Gil Scott, Parks and Ecological Reserves Planning Branch, BC Parks
Phone 250 387-4593, fax 250 387-5757

Class C Provincial Park Boards
Class C Park Boards are appointed by the minister to develop, manage and maintain their designated Class C park in accordance with the *Park Act*. Class C parks are generally small parks located in outlying, unincorporated communities and are intended to service the local area. Park facilities are usually limited to picnic and playground areas, though in some cases they include campsites or community halls. Each Class C Park Board is required to submit an annual report to the Minister.
Contact: Gil Scott, Parks and Ecological Reserves Planning Branch, BC Parks
Phone 250 387-4593, fax 250 387-5757

Duke Point Development Limited
The Company owns and operates Duke Point Industrial Park in Nanaimo, with the mandate to maximize the return on the Province's investment through the ownership, development and disposition of land within the park in a manner which furthers the economic development of central Vancouver Island and British Columbia. The Chair, President and one other Director are all British Columbia Assets & Land Corporation employees. The Board is accountable to the shareholder, the Minister of Environment, Lands and Parks, with all company shares held in the ministry's name. Directors have also been appointed from the Ministry of Finance and Corporate Relations and the Ministry of Employment and Investment. One resident of Nanaimo is currently a board appointee.
Contact: Jack Hall, Director, Vice President, British Columbia Assets & Land Corporation
Phone: 250 356-6633

Environmental Appeal Board
The board is an independent quasi-judicial regulatory agency established under the *Environment Management Act* of 1981, with members appointed by the Lieutenant Governor in Council. The board hears appeals on decisions under specific acts administered by the ministry and one act administered by the Ministry of Health.
Contact: Sandra Aitken, Environmental Appeal Board
Phone 250 356-7032, fax 250 356-9923

Environmental Assessment Board
Established under the *Environmental Assessment Act*, the board conducts public hearings and makes recommendations to the provincial government concerning project approval certificates referred by ministers.
Contact: Sandra Aitken, Environmental Assessment Board
Phone 250 356-7032, fax 250 356-9923

Grizzly Bear Trust Fund Public Advisory Board
The fund was established in 1995 as part of the Grizzly Bear Conservation Strategy. The minister is the trustee for the fund and appoints the members to the board, which consists of consists seven to 15 members. The trustee must consult with the advisory board and the Director of Wildlife before spending money from the Fund or disposing of any property from the Fund.
Contact: Matt Austin, Wildlife Branch
Phone 250 387-9799, fax 250 387-9145

Habitat Conservation Trust Fund Public Advisory Board
The HCTF is a statutory purpose trust (1996) that was originally a special account established in 1981 to assist in the preservation and enhancement of fish and wildlife and their habitats. The board is made up of 12 to 15 members appointed by the trustee, the minister, from the general public. The board is responsible for reviewing habitat enhancement and acquisition proposals and making recommendations to the minister regarding the management and administration of the fund. Funds come from surcharges on hunting, trapping, angling and guiding licences.
Contact: Rod Silver, Habitat Conservation Trust Fund
Phone: 250 356-6124, fax 250 952-6684

Appendix B

Supplementary Statistical Information

Hunting

April 1999 – March 2000:

- 96,188 licensed resident hunters purchased a total of 263,187 basic and species hunting licences.
- 639 licensed Canadian non-residents and 4,848 licensed alien non-residents in combination purchased a total of 18,433 basic and species hunting licences.
- Resident hunters purchased a total of 158,074 applications for Limited Entry Hunting draws.
- 4,622 resident and non-resident hunters were guided in B.C.
- 234 guides and 1,004 assistant guides actively guided hunters in B.C.

April 2000 – March 2001:

- 93,296 licensed resident hunters purchased a total of 259,025 basic and species hunting licences.
- 576 licensed Canadian non-residents and 5,293 licensed alien non-residents in combination purchased a total of 19,922 basic and species hunting licences.
- Resident hunters purchased a total of 159,716 applications for Limited Entry Hunting draws.
- 5,022 resident and non-resident hunters were guided in B.C.
- 233 guides and 1,014 assistant guides actively guided hunters in B.C.

Enforcement Summary for the Period April 1, 1999–March 31, 2000

Act	*Investigations Started*	*Charges Laid*	*Convictions*
Criminal Code	14	4	6
Ecological Reserve Act	1		
Firearm Act	100	180	175
Fisheries Act (Canada) and Regulations	938	526	573
Fish Inspection Act	1		
Forest Practices Code of British Columbia Act	38	4	19
Litter Act	6		3
Land Act	16	1	1
Livestock Protection Act	1		
Liquor Control and Licensing Act	4	17	23
Migratory Birds Convention Act and Regulations	16	2	7
Motor Vehicle Act	1	7	6
Motor Vehicle (All Terrain) Act	2	10	27
Pesticide Control Act and Regulations	67	11	15
Park Act[3]	3	4	2
Commercial River Rafting Safety Act	4	2	2
Transport Of Dangerous Goods Act	1		
Trespass Act	58	17	20
Water Act and Regulations	232	79	62
Wild Animal and Plant Protection Act	4		
Wildlife Act – Angling Offences	235	276	261
Wildlife Act and Regulations	3086	1033	965
Waste Management Act and Regulations	1142	475	263
TOTAL[4]	**5970**	**2648**	**2430**

[3] Investigations by Conservation Officers only. Complete public safety and public security statistics for provincial parks for the calendar year 1999 can be accessed on the Internet at http://iwww.elp.gov.bc.ca/bcparks/rec/psps-new/psps99.pdf.

[4] Includes investigations concluded during the fiscal year by the Special Investigations Unit.

Enforcement Summary for the Period April 1, 2000–March 31, 2001

Act	*Investigations Started*	*Charges Laid*	*Convictions*
Canada Shipping Act (Boating Restr. Regs.)	6	0	0
Commercial River Rafting Safety Act	4	1	3
Controlled Drugs and Substances Act (Canada)	4	0	0
Criminal Code	19	18	1
Firearm Act	89	162	161
Fish Inspection Act	3	4	0
Fisheries Act (Canada) and Regulations	911	333	402
Forest Act	2	0	0
Forest Practices Code of British Columbia Act	53	4	16
Land Act	7	0	0
Liquor Control and Licensing Act	7	10	9
Litter Act (repealed)	4	0	1
Migratory birds Convention Act and Regulations	14	3	0
Motor Vehicle (All Terrain) Act	31	16	17
Motor Vehicle Act	4	5	7
Park Act	7	7	4
Pesticide Control Act and Regulations	157	35	21
Trespass Act	55	20	17
Waste Management Act and Regulations	1234	157	148
Water Act and Regulations	229	40	44
Wild Animal and Plant Protection Act	2	2	0
Wildlife Act - Angling Offences	298	239	294
Wildlife Act and Regulations	3099	762	946
TOTAL	6239	1818	2091

Parks and Protected Areas

Protected Areas Established Between April 1, 1999 and March 31, 2000

	Hectares Added	Total Hectares	Date of Establishment/ Addition
PARKS			
Andy Bailey (upgrade Recreation Area)		196.0	June 29, 1999
Babine Mountains (upgrade Recreation Area; addition)		31,465.0	June 29, 1999
Babine River Corridor		15,339.0	June 29, 1999
Boulder Creek		53.0	June 29, 1999
Brackendale Eagles		755.0	June 29, 1999
Call Lake		60.0	June 29, 1999
Carp Lake (additions)	19,268.0	38,612.0	June 29, 1999
Dall River Old Growth		642.0	June 29, 1999
Denetiah		90,379.0	June 29, 1999
E.C. Manning (upgrade portion of Cascade Recreation Area)	4,822.0	70,844.0	June 29, 1999
Entiako		47,699.0	June 29, 1999
Finger-Tatuk		17,151.0	June 29, 1999
Francois Lake		7,214.0	June 29, 1999
Graham-Laurier		99,904.0	June 29, 1999
Horneline Creek		298.0	June 29, 1999
Kakwa (upgrade Recreation Area; additions)	43,200.0	170,890.0	June 29, 1999
Kotcho Lake Village Site		34.0	June 29, 1999
Liard River Corridor		83,159.0	June 29, 1999
Little Andrews Bay Marine		102.1	June 29, 1999
Milligan Hills		7,226.0	June 29, 1999
Mount Richardson		1,001.0	June 29, 1999
Nahatlatch		2,009.0	June 29, 1999
Netalzul Meadows		292.0	June 29, 1999
Nilkitkwa Lake		10.3	June 29, 1999
Northern Rocky Mountains (includes upgrade of Wokkpash Recreation Area)		665,709.0	June 29, 1999
Pink Mountain		92.0	June 29, 1999
Prophet River Wayside (upgrade Recreation Area)		113.0	June 29, 1999
Prophet River Hot Springs		184.0	June 29, 1999
Rainbow Alley		110.0	June 29, 1999
Redfern-Keily		80,712.0	June 29, 1999
Scatter River Old Growth		1,140.0	June 29, 1999
Sechelt Inlets Marine (upgrade Recreation Area)		140.0	June 29, 1999

Sikanni Old Growth		1,439.0	June 29, 1999
Spipiyus		2,979.0	June 29, 1999
Stuart River		7,391.0	June 29, 1999
Swan Lake Upper Kispiox (addition)	43,046.0	62,319.0	June 29, 1999
Ten Mile Lake (addition)	80.0	334.0	June 29, 1999
Toad River Hot Springs		423.0	June 29, 1999
Valhalla (addition)	635.0	49,893	June 29, 1999
Windermere Lake		220.0	June 29, 1999

Protected Areas Announced Between April 1, 1999 and March 31, 2000 But Not Designated During the Reporting Period

(area figures are estimates only)

ROBSON VALLEY LAND AND RESOURCE MANAGEMENT PLAN

West Twin	37,200
Betty Wendle	13,900
Swiftcurrent Creek	9,000
Cariboo River	6,100
Upper (Middle) Raush	5,700
Small River Caves	1,800
Foster Arm	1,000
Lower Raush	1,300
Jackman Falls	615
Holliday Creek Arch	400

LAKES DISTRICT LAND AND RESOURCE MANAGEMENT PLAN

Entiako	70,400
Babine Lakes Sites	76
Sutherland	12,900
Uncha Mountain/Red Hills	8,800
Tweedsmuir Recreation Area upgrade	7,250
Burns Lake South	62

Protected Areas Established Between April 1, 2000 and March 31, 2001

	Hectares Added	Total Hectares	Date of Establishment/ Addition
PARKS			
Bear Glacier		542	May 11, 2000
Beaver Creek (addition)	23	67	May 17, 2000
Adams Lake Marine (addition)	43	278	June 29, 2000
Anderson Bay		35	June 29, 2000
Arctic Pacific Lakes		13,887	June 29, 2000
Arrowstone		6,157	June 29, 2000
Beatton River		185	June 29, 2000
Bobtail Mountain		1,360	June 29, 2000
Bocock Peak		1,142	June 29, 2000
Bowron Lake (addition)	25,200	139,700	June 29, 2000
Butler Ridge		6,024	June 29, 2000
Close-to-the-Edge		414	June 29, 2000
Coquihalla River		103	June 29, 2000
Crooked River (addition)	50	970	June 29, 2000
Dahl Lake (addition)	800	1,583	June 29, 2000
Erg Mountain		1,011	June 29, 2000
Eskers	2,300	3,979	June 29, 2000
Evanoff		1,473	June 29, 2000
Fort George Canyon		178	June 29, 2000
Fraser River		4,899	June 29, 2000
Gwillim Lake (addition)	23,333	32,326	June 29, 2000
Hole-in-the-Wall		137	June 29, 2000
Inland Lake		2,763	June 29, 2000
Jackman Flats		615	June 29, 2000
Monkman (addition)	22,185	54,185	June 29, 2000
Mount Elphinstone		139	June 29, 2000
Mount Robson (addition)	5,956	224,866	June 29, 2000
Musket Island Marine (addition)	13	16.8	June 29, 2000
Peace River Corridor		2,014	June 29, 2000
Pine Le Moray		33,065	June 29, 2000
Pine River Breaks		614	June 29, 2000
Ptarmigan Creek		3,329	June 29, 2000
Purden Lake (addition)	2,200	2,521	June 29, 2000
Seven Sisters		27,200	June 29, 2000
Shuswap Lake Marine (addition)	26	1,022.16	June 29, 2000
Slim Creek		506	June 29, 2000
Small River Caves		1,818	June 29, 2000
Sowchea Bay (upgrade Recreation Area)		13	June 29, 2000
Stuart River (addition)	7,700	21,021	June 29, 2000
Sugarbowl-Grizzly Den		22,529	June 29, 2000
Three Sisters Lakes		968	June 29, 2000
Wapiti Lake		16,809	June 29, 2000
West Twin		22,317	June 29, 2000
Whiskers Point (addition)	40	116	June 29, 2000
Bearhole Lake		12,705	January 25, 2001
Big Creek (addition)	85	66,067.4	January 25, 2001
Border Lake		814	January 25, 2001

Burns Lake		65	January 25, 2001
Choquette Hot Springs		52	January 25, 2001
Entiako (addition)	562	48,261	January 25, 2001
Great Glacier		9,313	January 25, 2001
Iskut River Hot Springs		6	January 25, 2001
Lava Forks		7,384	January 25, 2001
Liard River West Corridor		1,903	January 25, 2001
Mount Blanchet		24,774	January 25, 2001
Mount Pope		2,030	January 25, 2001
Mudzenchoot		644	January 25, 2001
Rubyrock Lake		41,233	January 25, 2001
Spatsizi Headwaters		427	January 25, 2001
Sustut		75,037	January 25, 2001
Takla Lake Marine (addition)	452	550.2	January 25, 2001
Trembleur Lake		57	January 25, 2001
Tuya Mountains		18,001	January 25, 2001
Tweedsmuir Park (Recreation Area upgrade and addition)	7,250	989,788	January 25, 2001
Uncha Mountain Red Hills		9,866	January 25, 2001

OTHER *PARK ACT* DESIGNATIONS

Babine Mountain Trail		10	January 25, 2001

ECOLOGICAL RESERVES

Ballingall Islets			June 29, 2000
Burnt Cabin Bog		670	June 29, 2000
Catherine Creek		45	June 29, 2000
Grayling River Hot Springs		1,421	June 29, 2000
Kotcho Lake		64	June 29, 2000
Portage Brule Rapids		724	June 29, 2000
Rolla Canyon		43	June 29, 2000
Race Rocks (addition)	1.5	221.5	February 12, 2001

ENVIRONMENT AND LAND USE ACT DESIGNATIONS

Beaver Creek Protected Area		4	May 17, 2000
Sutherland River Protected Area		4,835	July 6, 2000
Nechako Canyon Protected Area		1,246	July 6, 2000
Denetiah Corridor Protected Area		7,441	July 6, 2000
Francois Lake Protected Area		29	July 6, 2000
Cummins River Protected Area		260	July 27, 2000
Bearhole Lake Protected Area		4,755	January 25, 2001
Buse Lake Protected Area		212	January 25, 2001
Chukachida Protected Area		19,637	January 25, 2001
Close-to-the-Edge Protected Area		288	January 25, 2001
Craig Headwaters Protected Area		7,101	January 25, 2001
Duck Lake Protected Area		768	January 25, 2001
Ekwan Protected Area		1,525	January 25, 2001
Entiako Protected Area		73,268	January 25, 2001
Foster Arm Protected Area		1,020	January 25, 2001
Goguka Creek Protected Area		435	January 25, 2001
Hay River Protected Area		2,323	January 25, 2001
Holliday Creek Arch Protected Area		395	January 25, 2001
Jackpine Remnant Protected Area		145	January 25, 2001

Lower Raush Protected Area	1,279	January 25, 2001
Kiskatinaw River Protected Area	154	January 25, 2001
Klin-se-za Protected Area	2,689	January 25, 2001
Klua Lakes Protected Area	28,018	January 25, 2001
Liard River Corridor Protected Area	4,793	January 25, 2001
Maxhamish Lake Protected Area	26,887	January 25, 2001
Nahatlatch Lakes Protected Area	65	January 25, 2001
Northern Rocky Mountains Protected Area	763	January 25, 2001
Pitman River Protected Area	16,316	January 25, 2001
Portage Brule Rapids Protected Areas	427	January 25, 2001
Ptarmigan Protected Area	1,304	January 25, 2001
Seven Sisters Protected Area	12,006	January 25, 2001
Sikanni Chief Canyon Protected Area	4,641	January 25, 2001
Sikanni Chief Falls Protected Area	605	January 25, 2001
Smith River-Fort Halkett Protected Area	254	January 25, 2001
Sugarbowl/Grizzly Den Protected Area	2,227	January 25, 2001
Thinahtea North Protected Area	3,674	January 25, 2001
Thinahtea South Protected Area	16,705	January 25, 2001
Tweedsmuir Corridor Protected Area	15	January 25, 2001
Upper (Middle) Raush	5,582	January 25, 2001
West Twin Protected Area	9,070	January 25, 2001
Hakai Conservation Study Area (Recreation Area conversion)	122,998	March 2, 2001

Protected Areas Announced Between April 1, 2000 and March 31, 2001 But Not Designated During the Reporting Period

(area figures are estimates only)

Cowichan River	28.0
Okanagan Mountain Park addition	118.0
Chemainus River	8
Cowichan River	173
Divers Lake	1,027
Haley Lake	517
MacMillan Park	21
Shushartie Bay (Cape Scott)	282
Tashish-Kwois	193
Francis Point	70
LOWER MAINLAND PROTECTED AREAS STRATEGY PROCESS	
Malaspina	560
MACKENZIE LAND AND RESOURCE MANAGEMENT PLAN	
Finlay-Russel	117,087
Kwadacha Wilderness Park (addition)	12,790
Muscovite Lakes	5,741
Pine Pass	10,255
Chase	35,945
Omineca	127,745
Frog-Gataga (Dune Za Keyih)	343,882
Ed Bird-Estella Lake	5,264
Ospika Cones	1,505
Heather-Dina Lake	5,970
CASSIAR ISKUT-STIKINE LAND AND RESOURCE MANAGEMENT PLAN	
Klastline River	14,000
Mess Creek	24,000
Ningunsaw Extension	15,000
Stikine Grand Canyon	45,000
Todagin South Slope	3,500
Upper Stikine Spatsizi Extension	297,000
OKANAGAN SHUSWAP LAND AND RESOURCE MANAGEMENT PLAN	
Anarchist	428
Anstey-Hunakwa	7,492
Brent Mountain	4,487
Cathedral Park (addition)	353
Cinnemousan Narrows Park (addition)	211
Enderby Cliffs	2,359
Graystokes	11,920
Greenbush Lake	2,792
Kalamalka Lake Park (addition)	1,971
Kingfisher Creek	430
Monashee Park (addition) (3 sites)	15,254
Mount Griffin	1,754
Myra-Bellevue	7,867

Pennask Creek	1,282
Pukeashun	1,742
Shorts Canyon (addition to Fintry Park)	3,014
South Okanagan Grasslands (4 sites)	9,678
Snowy	26,002
Trepanier	2,867
Upper Seymour River	10,580
Vaseux	1,994
White Lake Grasslands	3,627
Adra Tunnel	625
Anarchist Larch	278
Browne Lake	47
Denison-Bonneau	376
Eagle River	508
Englishman River	446
Isintok Lake	129
Mara Meadows	207
Naramata Creek	106
Oliver Mountain	365
Pillar	3
Similkameen River	9
Richter Grasslands	54
Shuswap River Islands	187
Shuttleworth Creek Larch	106
Skaha Bluffs	144
Skookumchuk Rapids	68
Similkameen Cottonwoods	20
Shuswap Lake Marine Park (additions) (2 sites)	43
Upper Perry River	164
Turnbull Creek	109
Upper Violet Creek	107
Upper Shuswap	25
Wap Creek	319
White Lake Park (addition)	255
Wrinkly Face	43
Yard Creek Park (addition) 116	

PARK/ECOLOGICAL RESERVE SYSTEM						
DESIGNATION	**1998/99 (Number)**	**1999/00 (Number)**	**2000/01 (Number)**	**1998/99 Area (ha)**	**1999/00 Area (ha)**	**2000/01 Area (ha)**
Class A Park	472	505	546	7,068,077	8,461,248	8,929,908
Class B Park	2	2	2	3,778	3,778	3,778
Class C Park	8	18	17	526	526	522
Recreation Area	23	17	11	817,449	614,280	470,842
Environment & Land Use Act	12	12	53	422,940	422,940	803,201
Ecological Reserves*	141	141	149	161,679	161,679	167,008
TOTAL	**654**	**679**	**767**	**8,467,584[5]**	**9,656,818[6]**	**10,370,558[7]**

[5] Twelve ecological reserves are also included in Class A parks. The area of overlap is approximately 6.595 ha. Two ecological reserves are also included in Lac du Bois Grasslands Park established under the *Environment and Land Use Act*. The area of overlap is 270 ha.

[6] Fourteen ecological reserves are also included in Class A parks. The area of overlap is approximately 7.363 ha. Two ecological reserves are also included in Lac du Bois Grasslands Park established under the *Environment and Land Use Act*. The area of overlap is 270 ha.

[7] Eight ecological reserves are also included in Class A parks. The area of overlap is approximately 4.431 hectares. Two ecological reserves are also included in Lac du Bois Grasslands park established under the Environment and Land Use Act. The area of overlap is 270 ha.

BC Parks – Yearly Comparisons

	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01
VISITS[8] ('000)								
Campground Use	2,575	2,793	2,892	2,731	2,674	2,970	2,649	2,634
Day Use	19,725	22,070	21,358	20,285	20,752	23,098	21,334	20,654
Boating Use	378	383	412	412	400	432	288	256
TOTALS (may not equal sum of figures due to rounding)	**22,677**	**25,246**	**24,662**	**23,428**	**23,827**	**26,500**	**24,271**	**23,543**
REVENUE ($'000; in $ of year reported)								
Revenue returned to the province[9]:								
Campground	113	89	82	74	74	236	110	115
Park Use Permits and Concessions	526	519	545	497	457	616	596	780
Commercial River Rafting Program	33	40	48	63	49	50	46	30
Miscellaneous				37	25	56		11
Total	**672**	**648**	**675**	**671**	**605**	**958**	**752**	**936**
Revenue retained by Park Facility Operators	7,821	8,660	9,000	8,593	8,300	9,232	10,500	10,625
EXPENDITURES ($'000; in $ of year reported)								
Crown Land Fund								
Land Acquisition[10]	18,284	28,565	39,005	1,852	1,299	364	478	9,581[11]
Parks Vote[12]	**35,705**	**35,540**	**33,165**	**33,036**	**33,850**	**32,743**	**40,096**	**38,549**
LANDBASE:								
Park ha (thousand)	6,572	6,617	8,148	8,266	8,402	8,468	9,657	10,372

[8] Visitation is for the calendar year that ends in the fiscal year (e.g. 1998 for 1998/99).
[9] Campground revenue does not include fees retained by park facility operators; miscellaneous revenue primarily includes non-refundable bid deposits.
[10] Includes land purchases and appraisals, surveys and property transfer and property taxes for lands acquired. The figures displayed do not include land values for lands obtained through land exchanges or donations.
[11] Completion of major timber exchanges for Vancouver Island Goal 1 and 2 CORE land use planning decisions.
[12] BC Parks voted expenditures including amortization. Does not include Forest Renewal BC Recreation Program and Campgrounds BC capital funding or Cypress Bowl contractual obligations.

Park Area per BC resident (ha)	1.8	1.8	2.2	2.1	2.1	2.1	2.4	2.8
VISITOR SERVICES:								
Camping Parties per Campsite[13]	75	82	85	79	76	84	72	68
Visitor Satisfaction Index for Campground Facilities/Services[11]	79	75	77	77	81	81	82	79

[13] Camping Parties per Campsite represents the number of uses per developed, fee collecting campsite for the 12 month period indicated.
[11] The index is calculated based on the provincial average of "excellent" and "above average" ratings received for five management items: cleanliness of restrooms; condition of facilities; cleanliness of grounds; sense of security; and control of noise.

Appendix C

Ministry Budget Summary by Vote 1999/2000 and 2000/20001

Description	Total 1999/00 Expenditure ($ 000)	Total 2000/01 Expenditure ($ 000)
Minister's Office	403	399
Environment and Lands Headquarters	16,957	20,685
- Crown Land Account	1,709	7,213
- Sustainable Environment Fund	17,480	17,480
Subtotal	36,146	45,378
Environment and Lands Regional Operations	38,955	42,627
- Sustainable Environment Fund	13,865	13,865
Subtotal	52,820	56,492
BC Parks	38,905	35,623
Wildlife, Habitat and Enforcement	5,020	6,128
- Habitat Conservation Trust Fund	1,206	
Subtotal	6,226	
Corporate Services	53,057	51,848
Environment Youth Team	11,251	9,270
TOTAL	**$198,808**	**$205,138**

Note: Total expenditures includes Voted Operations plus Capital Expenditures.

Appendix D

Legislation Administered in Whole or Part by the Ministry of Environment, Lands and Parks

(updated to August 15, 2000)

Boundary Act
Commercial River Rafting Safety Act,
Creston Valley Wildlife Act
Dike Maintenance Act
Dogwood, Rhododendron and Trillium Protection Act
Drainage, Ditch and Dike Act
Ecological Reserve Act
Environment and Land Use Act
Environment Management Act
Financial Administration Act
Fish Protection Act
Greenbelt Act
Industrial Operation Compensation Act
Land Survey Act
Land Surveyors Act
Libby Dam Reservoir Act
Ministry of Environment Act
Ministry of Lands, Parks and Housing Act
Motor Vehicle (All Terrain) Act,
Muskwa-Kechika Management Area Act
Park Act
Park (Regional) Act
Pesticide Control Act
Railway Act [section 33 only]
Skagit Environmental Enhancement Act

Sustainable Environment Fund Act

University Endowment Land Act

University Endowment Land Park Act

Waste Management Act

Water Act

Water Utility Act

Weather Modification Act

Wildlife Act.